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THE EFFECTS OF INTERNAL AUDIT REPORT TYPE AND REPORTING
RELATIONSHIP ON INTERNAL AUDITORS' JUDGMENTS

by
Douglas M. Boyle

A Dissertation

Presented in Partial Fulfillment of the Requirements for the
Degree of
Doctorate of Business Administration
In the
Coles College of Business
Kennesaw State University

Kennesaw, GA
2012

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Douglas M. Boyle
2012




Coles College of Business
Doctor of Business Administration

Dissertation Defense: March 26, 2012

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The content and format of the dissertation are appropriate and acceptable for the awarding of the degree of Doctor of Business Administration.

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job in the world”. That level of commitment shows in his work. I agree, we do have the best jobs in the world. I look forward to continuing to work with Dana in the future.

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ABSTRACT

THE EFFECTS OF INTERNAL AUDIT REPORT TYPE AND REPORTING RELATIONSHIP ON INTERNAL AUDITORS' JUDGMENTS

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This study examines the effects of internal audit reports issued to external stakeholders (the public) and internal audit reporting relationship types on internal auditors' judgments. I use a 4 x 2 between-subjects experiment and practicing internal auditors as participants. I manipulate internal audit report type at four levels ((1) no external report issued by the internal audit function [current state of practice], (2) descriptive external report of internal audit activities, (3) assurance external report on the internal controls, and (4) a descriptive external report of internal audit activities *and* an assurance external report on the internal controls). Senior level internal audit's reporting relationship is manipulated at two levels (primarily to management or primarily to the audit committee chair). I examine the effects of these independent variables on internal auditors' fraud risk and control risk assessments.

I find that the issuance of an internal audit report (IAR) to external stakeholders affects internal auditors' judgments. Specifically, internal auditors' fraud risk assessments are higher (more conservative) when the IAR is assurance-based or both activities and assurance-based than when the report is only activities-based or there is no external report. Additionally, the results indicate that when the Chief Audit Executive reports primarily to the Audit Committee Chair (as opposed to management), internal

auditors' control risk assessments are higher (more conservative). This relation is marginally significant for fraud risk assessments. Overall, there is evidence that internal audit report type and reporting relationship each affect internal auditors' judgments, increasing the conservatism of certain risk assessments when accountability to stakeholders or the audit committee increases.

TABLE OF CONTENTS

Title Page.....	i
Copyright Page.....	ii
Signature Page.....	iii
Acknowledgements.....	iv
Abstract.....	vii
Table of Contents.....	ix
List of Tables.....	x
Chapter 1 - Introduction.....	1
Chapter 2 – Literature Review.....	17
Chapter 3 - Methodology.....	28
Chapter 4 – Data Analysis and Findings.....	49
Chapter 5 – Conclusions, Limitations and Future Research.....	74
References.....	78
Appendix A – Institute of Internal Auditors First, Second, and Third Request.....	83
Appendix B – Copy of Case Instrument.....	87

LIST OF TABLES

Table	Page
1 4 X 2 Experimental Design and Expected Cell Sizes.....	30
2 Instrument Flow.....	33
3 Fully Completed Experiments.....	48
4 Fully Completed and Passed All Manipulation Checks.....	51
5 Demographic Information.....	53
6 Descriptive Statistics.....	56
7 One-way ANOVAs.....	56
8 Overall MANCOVA Results.....	59
9 ANCOVA Results Fraud Risk and Control Risk.....	62
10 Planned Contrast Testing to Isolate Effect of Report Type on Fraud Risk.....	63
11 Report Type X Relationship Type in Control Risk ANCOVA.....	63
12 ANCOVA Results Control Testing Hours and Justification to CFO.....	65
13 Planned Contrast Testing Results Test Hours and Justification to CFO.....	66
14 Survey Responses Perceptions of IARs and Actual IAF Oversight.....	73

CHAPTER 1 – INTRODUCTION

This study responds to previous calls for research and examines whether differences in internal audit report type and internal audit's reporting relationship have an effect on internal auditors' fraud risk and control risk judgments. The study provides insights into influences on internal auditors' judgments, as well as evidence to advance the dialogue on internal audit reports issued externally and optimal internal audit reporting channels.

Specifically, this study examines the effects of internal audit reports issued to external stakeholders (the public) and internal audit reporting relationship types on internal auditors' judgments. I use a 4 x 2 between-subjects experiment and practicing internal auditors as participants. I manipulate internal audit report type at four levels ((1) no external report issued by the internal audit function [current state of practice], (2) descriptive external report of internal audit activities, (3) assurance external report on the internal controls, and (4) a descriptive external report of internal audit activities *and* an assurance external report on the internal controls). Senior level internal audit's reporting relationship is manipulated at two levels (primarily to management or primarily to the audit committee chair). I examine the effects of these independent variables on internal auditors' fraud risk and control risk assessments, tasks that are central to the role of an internal audit function (IIA 2010b).

Previous authors have called for research on internal audit reports and reporting channels. For example, Archambeault et al. (2008) call for internal auditors to consider

issuing formal, external reports to stakeholders, and they specifically cite the need for research on the effects of such external reports on internal auditors' judgments. Beasley et al. (2009) find that many internal audit functions have reporting channels to the audit committee and management that are "murky", raising questions about the party to whom internal audit truly is accountable. The Institute of Internal Auditors (2003) calls for research on the impacts of different internal audit reporting channels.

I find that the issuance of an internal audit report (IAR) to external stakeholders affects internal auditors' judgments. Specifically, internal auditors' fraud risk assessments are higher (more conservative) when the IAR is assurance-based or both activities and assurance-based than when the report is only activities-based or there is no external report. Additionally, the results indicate that when the Chief Audit Executive reports primarily to the Audit Committee Chair (as opposed to management), internal auditors' control risk assessments are higher (more conservative). This relation is marginally significant for fraud risk assessments. Overall, there is evidence that internal audit report type and reporting relationship each affect internal auditors' judgments, increasing the conservatism of certain risk assessments when accountability to stakeholders or the audit committee increases.

When asked about their perceptions of IARs, the participants indicated a moderate degree of support for the issuance of an activities-based (descriptive) IAR, citing that such a report may provide recognition to the internal audit function (IAF), elevate the status of the IAF, improve corporate governance, and enable benchmarking opportunities. Participants who did not support the issuance of a descriptive IAR indicated that it may provide limited value, may not be consistent with the role of an IAF, may be too

costly/time consuming, and may lack required organizational support. Overall, the participants believe that the issuance of a descriptive IAR would increase the total IAF budget by an average of over 17 percent.

The participants indicated a modest degree of support for the issuance of an assurance-based IAR, citing that such a report may increase responsibility and risk to the IAF, may not be consistent with the role of the IAF, may overlap with the external auditor's work, may be costly and require significant time/resources, and represents a significant change that may not be supported by the organization. The participants indicated the costs associated with issuing such a report would be extremely high, a mean of 78 percent (43 percent) of the current IAF budget for public company (non-public company) participants.

The results also reveal that, in actual practice, the balance of internal audit reporting for the non-public company participants resides with management, for both oversight and budget determination. The balance of oversight for public company participants resides equally between management and the audit committee chair (consistent with Abbott et al. 2010), and resides primarily with management for budget determination. Thus, in actual practice, the participants serve in IAFs with significant accountability to management, rather than the audit committee.

This study has four potential practice implications. First, the results provide management and audit committee members with insights into how to design internal audit report types and relationship types to promote effective corporate governance. These issues are long-standing questions within the practice community, for which limited academic research has been performed. Specifically, the findings of the study

show that report types and reporting relationships affect internal auditors' risk assessments. Report types and reporting relationship types that increase internal audit's accountability to stakeholders and to the audit committee result in more conservative judgments. Second, the study highlights the significant potential costs of externally-issued IARs, which must be weighed against the expected benefits. Third, in their actual organizations, participants serve in IAFs with significant accountability to management, rather than the audit committee. Such reporting relationships may impede the effectiveness of the IAF, as well as the overall effectiveness of corporate governance, given that the internal audit function plays such a pivotal role in the governance process (Abbott 2010; Cohen et al. 2004; Gramling et al. 2004). In addition, there may be implications for the effectiveness of others within the governance mosaic, such as the audit committee and the external auditor who rely on the work of the IAF to fulfill their roles. Fourth, the results of this study may be of interest to policy makers, particularly the Securities and Exchange Commission, as it governs U.S. public company disclosures. I encourage the SEC to carefully consider the costs and benefits of externally-issued IARs, especially as this area of research grows.

Finally, the study has implications for research and theory. The study utilizes accountability theory and agency theory to examine a key area of corporate governance. In applying these theories in the context of corporate governance, researchers are better able to understand how greater accountability of internal auditors may induce greater conservatism and monitoring, tenets of agency theory. In addition, the study responds to previous calls for academic research and provides a complement to earlier work (Holt and DeZoort 2009) that examined the effects of IARs on investors' judgments.

The Institute of Internal Auditors states, “Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes” (IIA 2010a). This role requires the internal auditor to serve several stakeholders, perform a wide range of duties, and balance sometimes-conflicting requirements. This study investigates certain issues (i.e., report types, relationship types, fraud risk assessments, and control risk assessments) related to the internal audit function (IAF) and its role in governance. Gaining insight into these areas is important given the critical role the IAF plays in effective corporate governance (see Gramling et al. 2004). Cohen et al. (2004, 136) emphasize the significance of the internal audit function as an important part of the corporate governance mosaic and state:

...governance reforms (i.e., The Sarbanes-Oxley Act and the resulting SEC and stock exchange regulation) have emphasized the significance of the internal audit function as an important part of the governance mosaic. For example, companies listed on the NYSE are now required to maintain an internal audit function and the audit committees of such companies are required to meet with the internal auditors without the presence of management. Increasingly, boards and audit committees view internal and external auditors as partners who must work together for ensuring the highest quality of financial reports are provided to all stakeholders.

The internal auditor is in the unique position of having daily access to the internal culture, management, processes, and activities of the organization. This access may provide the internal auditor the opportunity to detect corporate governance, risk, or control issues in a manner that other actors in the governance mosaic (i.e., external auditors, directors) often cannot, based on their distance from the organization.

Internal Audit Report

Given the significant role that the IAF plays in the governance of an organization (Cohen et al. 2004; Gramling et al. 2004), it is a potential shortcoming of governance design that internal audit continues to be the only key player in the governance mosaic not to make disclosures or express assurances that are available to *external* stakeholders. Instead, current governance disclosures and assurances to external stakeholders focus only on management, the board and its committees, and the external auditor (Archambeault et al. 2008). Internal audit typically does not provide any information about its composition, responsibilities, or activities to outside stakeholders, nor does it provide any external assurance to stakeholders. However, some have discussed whether such disclosure and assurance from the IAF to the external stakeholders would provide useful information to the public, while positively affecting the behaviors of the IAF to improve the corporate governance of the organization (Archambeault et al. 2008).

To address this lack of externally-available information about internal audit, previous authors have called for the consideration of an Internal Audit Report (“IAR”) to external stakeholders (Holt and DeZoort 2009; Archambeault et al. 2008; Lapidés et al. 2007). This IAR would provide disclosure from the IAF directly to the external stakeholders and could address the composition, responsibilities, and activities of the IAF, as well as certain forms of assurance. Such information could provide useful insights into the role of the IAF in corporate governance.

To begin to examine whether an IAR provides valuable information to stakeholders, Holt and DeZoort (2009) examine the user side of the IAR setting and evaluate the extent to which a descriptive IAR affects investor confidence and investment

decisions. Their results indicate that participants provided with a descriptive IAR (addressing the IAF's activities) have more confidence in financial reporting reliability and assess perceived company oversight effectiveness higher than participants without access to a descriptive IAR. The IAR effect on confidence in financial reporting reliability is particularly evident for high fraud risk companies. Self-insight results show that the IAR is perceived to be as useful as several currently required disclosures, such as the Audit Committee Report, Management's Discussion and Analysis, and Management's Report on Internal Controls. Thus, based on Holt and DeZoort (2009), it appears that a descriptive IAR would provide valuable information to external stakeholders.

Research has not yet addressed any effects of an IAR issued to external stakeholders on internal auditors' judgments. Archambeault et al. (2008, 5-6) cite one of the expected advantages of such IARs to be enhanced accountability for internal auditors, and they call for research on this issue:

Interview results provide evidence that supports accountability and increased diligence as benefits of IAR disclosure. For example, one internal auditor participant suggested that "the report would help address questions about what internal audit does... increased transparency may lead to increased quality standardization of, and investment in, internal audit activities." The interviews also revealed suggestions that an IAR would provide incentive for management to provide more support and access to internal auditors. For example, one internal auditor recognized the "potential for increased resource allocation for internal audit if such disclosure is made." Similarly, one policymaker highlighted that "management might not want to reveal a lack of support for the internal audit function." One of the audit committee member participants stated that "the net benefit of the report would be to hold the internal audit function and management *to a higher standard of accountability.*" [emphasis added]

Later the authors state (p. 10), "While we describe the IAR's potential to complement existing governance disclosures, we emphasize the need for additional research and

discussion by policymakers, practitioners, and researchers to further evaluate the merits and specify the nature of such disclosure.” The authors also call for cost/benefit research on implementing and maintaining an IAR to external stakeholders.

Based on Archambeault et al. (2008), this study investigates whether the provision of an IAR manipulated at four levels (to capture four levels of accountability – no external report issued by internal audit [current state of practice], descriptive external report of internal audit activities, assurance external report on the internal controls, and a descriptive external report of activities *and* an assurance external report on the internal controls) affects internal auditors’ judgments when performing fraud risk and control risk assessments.. This study also examines internal auditors’ degree of support for such reports and the perceptions of the benefits and costs of such reports.

Internal Audit Reporting Channel

Internal auditors typically have a dual reporting structure, where they report to both management and the audit committee. This structure varies across organizations and often places the internal audit function in a somewhat conflicted position. The Institute of Internal Auditors (IIA) calls for that the head of the IAF to receive strategic direction and reinforcement from the audit committee chair, while also reporting to management for assistance in establishing direction and support, and as an administrative interface (IIA 2010a). While internal auditors have access to and operate within the organization, they are required to provide independent and objective assurance on the effectiveness of the risk management, control, and governance processes of the organization as part of their role in the governance mosaic (IIA 2010a). The IIA defines independence and objectivity as key components of an effective IAF, as stated in The IIA standards and guidance (IIA

2010a, 3-4). In addition, The IIA identifies objectivity as one of its four mandatory principles under its Code of Ethics (IIA 2010a, 3-4):

The chief audit executive must report to a level within the organization that allows the internal audit activity to fulfill its responsibilities. The chief audit executive must confirm to the board, at least annually, the organizational independence of the internal audit activity. The internal audit activity must be free from interference in determining the scope of internal auditing, performing work, and communicating results. Internal auditors must have an impartial, unbiased attitude and avoid any conflict of interest.

Internal auditors exhibit the highest level of professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined. Internal auditors make a balanced assessment of all the relevant circumstances and are not unduly influenced by their own interests or by others in forming judgments.

Thus, The IIA recognizes internal audit's dual reporting role and the potential for the IAF's independence and objectivity to be affected by its reporting structure. While this definition of the role of internal audit includes the key stakeholders needed for the function to be effective, it creates inherent conflict and accountability confusion, which may affect the judgment of the internal auditor. Several academic authors have provided additional insight into these issues that illustrate how the IAF's reporting channels to both management and the audit committee could affect the independence of the IAF.

First, Gramling and Hermanson (2006) discuss the requirement for the IAF to serve two roles and offer suggestions to internal auditors on how to add the greatest value in this matrix-reporting environment. The first role discussed is to the board for governance matters, and the second role is to management, primarily to provide consulting services. The authors state (p. 38): "To have the greatest value to the board, internal auditors should think of their primary role as a resource to the board and its audit committee, and should develop the internal audit function accordingly."

Second, Christopher et al. (2009) identify threats to maintaining the independence of the IAF. The most significant threats to independence include the following (p. 200):

Using the internal audit function as a stepping stone to other positions; having the chief executive officer (CEO) or chief finance officer (CFO) approve the internal audit function's budget and provide input for the internal audit plan; and considering the internal auditor to be a "partner", especially when combined with other indirect threats.

With respect to the relationship with the audit committee, significant threats identified include the IAF not reporting functionally to the audit committee; the audit committee not having sole responsibility for appointing, dismissing and evaluating IAF leadership; and not having all audit committee members or at least one member qualified in accounting.

Third, Beasley et al. (2009) conducted interviews of audit committee members and found that internal audit's reporting relationship with the audit committee and management often is "murky". The authors state (pp. 36-37): "In many cases, the oversight of internal audit is shared between the audit committee and management in a fairly informal, sometimes contentious manner... Overall, there was a substantial lack of clarity in internal audit's reporting channels... there is significant potential for internal audit's loyalties to be divided as a result of multiple reporting channels (i.e., to the audit committee and management)."

Fourth, Barua et al. (2010) examine audit committee characteristics and investment in internal auditing using 181 SEC registrants. The study finds that the internal audit budget is positively related to the frequency of audit committee meetings. The study also finds that internal audit budget investment is negatively related to the presence of auditing experts on the audit committee and audit committee member tenure. These findings indicate that the characteristics of the audit committee are associated with the budget determination of the IAF.

Fifth, using surveys of 134 chief internal auditors from *Fortune* 1000 firms, Abbott et al. (2010) investigated the relationship between audit committee oversight of the IAF and the amount of the IAF budget allocated to internal-control-based activities. Oversight was measured with a series of questions requesting the participants to indicate their level of agreement using a five-point Likert scale: internal audit reports to the audit committee, internal audit reports to the Chief Financial Officer, internal audit reports to the Chief Executive Officer, the audit committee has authorization to terminate the Chief Internal Auditor, the CFO has authorization to terminate the Chief Internal Auditor, the CEO has authorization to terminate the Chief Internal Auditor, the audit committee determines internal audit's annual budget, the CFO determines internal audit's annual budget, and the CEO determines internal audit's annual budget.

The study finds a strong positive relationship between increased audit committee oversight of the IAF and the amount of the IAF budget allocated to internal-control-based activities. In addition, the study finds that the audit committee shares a near-equal oversight role with management related to the IAF. When the IAF is resource constrained by a budget, the dual reporting channel may cause competing directives from the audit committee and management, whereby the audit committee has motivation to support the allocation of resources to internal control related activities and management may support the allocation of resources to consultative activities.¹ Thus, Abbott et al.'s (2010) results indicate that the IAF's reporting relationship may affect the allocation of IAF resources.

¹ Also see Carcello et al. (2005), Hermanson and Rittenberg (2003), Quarles (1994), and Pei and Davis (1989) for additional discussion of reporting channels.

Finally, the Institute of Internal Auditors' *Research Opportunities in Internal Auditing* (2003) raised the following research questions related to internal auditor reporting channels:

1. Are there inherent conflicts in reporting responsibilities when internal auditors report to both the audit committee and to various levels of management?
2. What is (are) the potential impact(s) of having the IAF report to different organizational levels (e.g., board of directors in general, audit committee, the CEO, the COO, the CFO)?
3. Is there an ideal reporting relationship for the IAF? What are the parameters of the ideal reporting relationship, and what are the primary determinants of the ideal reporting relationship?
4. What type of internal audit structure enhances the accountability of governmental entities?
5. How can the IAF best increase accountability to various stakeholders?

These research questions have not yet been extensively investigated, which provides further motivation for the current study. Given the sometimes-unclear reporting structure for internal audit, it is important to understand the effect that the IAF reporting channel has on the judgments of internal auditors.

The literature I reviewed indicated potential conflicts within the dual reporting structure of the IAF between management and the audit committee, which may threaten the independence/objectivity of the IAF. There also remain several open research questions regarding the potential effects of the IAF's reporting relationships that will be specifically addressed by my study including:

1. Does the reporting relationship of the IAF affect the judgments of internal auditors when performing fraud and control risk assessments?
2. Where does the balance of reporting for the IAF currently reside (with management or the audit committee chair)?
3. Which governance player (management or the audit committee) currently determines the budget of the IAF?

Overview of Study

This study investigates the following three issues that have been identified as areas for future research and of significant importance to the practice and policy formulation of the internal audit function:

1. The effect of internal audit reports to external stakeholders on internal auditors' fraud risk and control risk assessments, using four manipulated levels of report type (no external report issued by internal audit [current state of practice], descriptive external report of internal audit activities, assurance external report on the internal controls, and a descriptive external report of activities *and* an assurance external report on the internal controls),
2. Internal auditors' perceptions of the costs and benefits of externally-issued internal audit reports, and
3. The effect of internal audit's reporting channels (reporting primarily to the audit committee chair and to management) on internal auditors' fraud risk and control risk assessments.

The study uses a 4 x 2 between-subjects experiment (four report types and two relationship types) with 108 practicing internal auditors as participants. The participants

were obtained from the membership of three IIA chapters, who received email invitations to participate in the study using an online instrument. I find that the issuance of an internal audit report (IAR) outside the company affects internal auditors' judgments. Specifically, internal auditors' fraud risk assessments are higher (more conservative) when the IAR is assurance-based or both activities and assurance-based than when the report is only activities-based or there is no external report. Additionally, the results indicate that when the Chief Audit Executive reports primarily to the Audit Committee Chair (as opposed to management), internal auditors' control risk assessments are higher (more conservative). This relation is marginally significant for fraud risk assessments. Overall, there is evidence that internal audit report type and reporting relationship each affect internal auditors' judgments, increasing the conservatism of certain risk assessments when accountability to stakeholders or the audit committee increases.

When asked about their perceptions of IARs, the participants indicated a moderate degree of support for the issuance of an activities-based (descriptive) IAR, citing that such a report may provide recognition to the internal audit function (IAF), elevate the status of the IAF, improve corporate governance, and enable benchmarking opportunities. Participants who did not support the issuance of a descriptive IAR indicated that it may provide limited value, may not be consistent with the role of an IAF, may be too costly/time consuming, and may lack required organizational support. Overall, the participants believe that the issuance of a descriptive IAR would, on average, increase the total IAF annual budget by over 17 percent.

The participants indicated a modest degree of support for the issuance of an assurance-based IAR, citing that such a report may increase responsibility and risk to the

IAF, may not be consistent with the role of the IAF, may overlap with the external auditor's work, may be costly and require significant time/resources, and represents a significant change that may not be supported by the organization. The participants indicated the costs associated with issuing such a report would be extremely high, a mean of 78 percent (43 percent) of the current IAF budget for public company (non-public company) participants.

The results also reveal that, in actual practice, the balance of internal audit reporting for the non-public participants resides with management, for both oversight and budget determination. The balance of oversight for public company participants resides equally between management and the audit committee chair (consistent with Abbott et al. 2010), and resides primarily with management for budget determination. Thus, in actual practice, the participants serve in IAFs with significant accountability to management, rather than the audit committee.

This study has four potential practice implications. First, the results provide management and audit committee members with insights into how to design internal audit report types and relationship types to promote effective corporate governance. These issues are long-standing questions within the practice community, for which limited academic research has been performed. Specifically, the findings of the study show that reporting relationship types and report types affect internal auditors' risk assessments. Report types and reporting relationship types that increase internal audit's accountability to stakeholders and to the audit committee result in more conservative judgments. Second, the study highlights the significant potential costs of externally-issued IARs, which must be weighed against the expected benefits. Third, in their actual

organizations, participants serve in IAFs with significant accountability to management, rather than the audit committee. Such reporting relationships may impede the effectiveness of the IAF, as well as the overall effectiveness of corporate governance, given that the internal audit function plays such a pivotal role in the governance process (Abbott 2010; Cohen et al. 2004; Gramling et al. 2004). In addition, there may be implications for the effectiveness of others within the governance mosaic, such as the audit committee and the external auditor who rely on the work of the IAF to fulfill their roles. Fourth, the results of this study may be of interest to policy makers, particularly the Securities and Exchange Commission, as it governs U.S. public company disclosures. I encourage the SEC to carefully consider the costs and benefits of externally-issued IARs, especially as this area of research grows.

Finally, the study has implications for research and theory. The study utilizes accountability theory and agency theory to examine a key area of corporate governance. In applying these theories in the context of corporate governance, researchers are better able to understand how greater accountability of internal auditors may induce greater conservatism and monitoring, tenets of agency theory. In addition, the study responds to previous calls for academic research and provides a complement to earlier work (Holt and DeZoort 2009) that examined the effects of IARs on investors' judgments.

CHAPTER 2: LITERATURE REVIEW

Accountability

In the academic literature, “accountability” refers to being answerable to audiences for performing up to certain prescribed standards, thereby fulfilling obligations, duties, expectations, and other charges (Schlenker et al. 1991; Schlenker and Weigold 1989; Schlenker 1986). When people are accountable, they can be made to explain and justify their conduct, and their behavior can be scrutinized, judged, and sanctioned by audiences (Tetlock 1985, 1992; Semin and Manstead 1983). The board, audit committee, internal audit, and external audit serve in the role to scrutinize, judge, and sanction on behalf of the external stakeholders, and management serves as an agent of the external stakeholders and is the subject of such oversight processes.

The notion of accountability discussed above is consistent with how accountability is implemented in business practice under effective corporate governance. However, with several parties (with potentially varying levels of information, capabilities, and motivations) exerting accountability over management (with potentially its own set of information, capabilities, and motivations) on behalf of a wide range of external stakeholders, the application of this notion is complex (see Cohen et al. 2004). The “corporate governance mosaic,” as described in Cohen et al. (2004), illustrates the complexity that is created by the diverse needs of the wide range of external stakeholder groups (which include the courts and legal system, regulators, financial analysts, stock exchanges, legislators, and stockholders) and the motivations, capabilities, interactions,

and information held and sought by the key players in the governance mosaic (which include the board, audit committee, internal auditors, and external auditor). Since the governance structure described above includes various levels of accountability, which ultimately is intended to reside with external stakeholders, formal study of the effects of accountability on the judgments of the various players is important to ensure effective governance.

Agency theory (e.g., Jensen and Meckling 1976) indicates that the agents (in this case management) will not always act in the best interests of the principals, thus creating a need for monitoring and accountability (see Cohen et al. 2008). Since most shareholders cannot directly exercise this accountability, the board and its committees, and the internal and external auditors, serve to ensure this accountability is established and maintained. Through a complex formal and informal process, the interaction of the board of directors, audit committee, internal audit function, external auditor, and management attempts to create this accountability to the external stakeholders (see Cohen et al. 2004). Corporate governance cannot be effective without this accountability; therefore, it is critical to ensure it is established and maintained and does not serve as only a ceremonial process, as suggested by institutional theory (Carcello et al. 2011; Cohen et al. 2008; Cohen et al. 2004).

DeZoort et al. (2006) examined the effects of accountability on external auditors' behavior. The study builds on a line of external auditing research examining the effects of accountability on auditor behavior (DeZoort et al. 2006, 6-7): "Collectively, these studies generally indicate that accountability pressure decreases judgment variability (e.g., Ashton 1992; Johnson and Kaplan 1991) and increases judgment conservatism (e.g.,

Hoffman and Patton 1997; Lord 1992) and effort (e.g., Asare et al. 2000; Chang et al. 1997; Cloyd 1997; Koonce et al. 1995; Tan 1995).” Of primary relevance to the present study is the link between accountability and greater conservatism in judgments.

The DeZoort et al. (2006) study used a 4 X 2 between-subjects experiment involving a series of materiality judgments. The participants were 160 external auditors from five public accounting firms. The authors manipulated accountability pressure at four levels: (1) anonymity, (2) review, (3) justification, and (4) feedback. They found that incremental increases in levels of accountability of the external auditor through audit partner review, justification, and feedback resulted in increased judgment conservatism, decreased judgment variability, and increased levels of effort when performing planning materiality and proposed audit adjustment tasks. The technical backgrounds, experiences, and training of external auditors often are similar to those of internal auditors. In this study, I expand this line of research to the context of reporting types and relationship types of the internal auditor.

The literature on accountability theory regarding performance ratings from the rater’s perspective is also relevant to this study, given that the primary responsibility of the internal auditor is to provide feedback on the performance of an organization, its management, and its internal controls. This places the internal auditor in the role of a rater, similar to one in a performance-rating context. In this role as rater, the internal auditor may make varying judgments depending on to whom he/she formally and informally reports. Specifically, if the balance of reporting for the internal auditor resides with management (a party that supports the reporting of favorable outcomes), the internal auditor may feel pressure to report more favorable outcomes, resulting in lower quality

ratings. If the balance of reporting resides with the audit committee (a party that supports objective reporting), the internal auditor will be operating with no special pressures and will provide higher quality ratings.

Academic research in this area demonstrates that raters who are held accountable for their ratings in a motivational context in which there are no special pressures to achieve a certain rating outcome will rate more accurately than raters in the same motivation context who are not held accountable for their ratings (Mero and Motowidlo 1995). In addition, the extant literature provides evidence that accountable raters will rate more consistently than will non-accountable raters. Prior research also provides evidence that when individuals are required to document, report, and justify their ratings to higher status or mixed status audiences, they provide more accurate ratings because they are made to feel more accountable (Mero et al. 2007).

Based on accountability theory, both the lack of a report from the internal auditor to the external stakeholders and the murky reporting relationship of the internal auditor (oftentimes to senior management, who is supposed to be the subject of monitoring) tend to reduce the level of accountability of the internal auditor to the ultimate beneficiaries of corporate governance, the external stakeholders. These two existing conditions should create stronger levels of accountability to management, as that is the group that receives reports from the internal auditor and to whom the internal auditor often reports. In this context, using accountability theory, the internal auditor will tend to make decisions and judgments that are consistent with the views of the audience, which is management. Given that internal auditors often have an unclear reporting relationship and in many cases are accountable to management, they will be motivated to present themselves as

positively as possible to this group and not properly maintain objectivity in their assessment. When this occurs, the effectiveness of the player perhaps best positioned to detect irregularities in the corporate governance mosaic, internal audit, is diminished. By contrast, having internal audit issue reports to external stakeholders and having internal audit report primarily to the audit committee instead of management both serve to increase internal audit's accountability to parties favoring more conservative judgments.

Hypotheses

Internal Audit Reports

Currently, the internal auditor does not document, report, or justify his/her ratings to the external stakeholders. In this study, I apply accountability theory to the internal audit reporting context. I posit that when internal auditors are required to document and issue a written report to the external stakeholders, who would represent a higher status audience, they may feel/experience greater accountability. Accountability theory predicts that issuing an external report will motivate internal auditors to perform their role in a manner that is more closely aligned with the interests of those external stakeholders, thus resulting in more effective governance. Further, I posit that increasing the level of accountability through variations in the content of the external report, should "cause" internal auditors' judgments to become more conservative. External stakeholders prefer the controls and financial reporting process of the organization in which they have an interest to be conservative (management does not cut corners and takes the governance process seriously) in order to produce reliable and accurate information and to safeguard assets (see Cohen et al. (2004) for discussion).

With respect to issuing an IAR to external stakeholders, internal audit accountability to external stakeholders increases with the issuance of an activities-based

IAR (what the IAF does) versus no external report. In providing descriptive information to the external stakeholders, the IAF become more accountable to those stakeholders because the function is now subject to review, scrutiny, and feedback. Likewise, an assurance-based report (where the IAF provides a conclusion about internal control effectiveness) reflects even greater accountability than an activities-based IAR. The conclusion reached by the IAF increases the degree of review, scrutiny, and feedback the IAF will encounter, thus increasing the degree of accountability. Finally, providing both activities and assurance information in the IAR represents the highest level of accountability in this study.

The two prime judgments presented to the participants were fraud risk assessments and control risk assessments. While it may be expected that increased levels of scrutiny would increase the level of internal audit accountability (and conservatism) for all judgments, these two judgments are of particular interest due to the central role they play in internal auditing and corporate governance. According to The Institute of Internal Auditors' 2010 Global Survey (IIA 2010b) (which included more than 13,500 respondents from more than 107 countries), investigation of fraud and evaluation of internal controls were both listed within the top five activities performed by internal auditors. In addition, these two judgments are related, as poor controls often lead to increased risk of fraud (e.g., the fraud triangle) and would be of particular interest to a variety of external stakeholders, who can suffer significant damages in fraud cases (e.g., Beasley et al. 2010).

Based on the discussion above, the first set of hypotheses uses accountability theory to predict the effect of report type as follows (collectively, internal auditor

conservatism is predicted to increase across the levels of (a) no report, to (b) activities-based IAR, to (c) assurance-based IAR, to (d) activities-based and assurance-based IAR):

Hypothesis 1A:

Internal auditors issuing a *descriptive activities*-based internal audit report to external stakeholders will make more conservative judgments when performing fraud and control risk assessments than internal auditors issuing no such report.

Hypothesis 1B:

Internal auditors issuing an *assurance*-based internal audit report to external stakeholders will make more conservative judgments when performing fraud and control risk assessments than internal auditors issuing a descriptive activities-based report.

Hypothesis 1C:

Internal auditors issuing a *descriptive activities-based and assurance-based* internal audit report to external stakeholders will make more conservative judgments when performing fraud and control risk assessments than internal auditors issuing an assurance-based report.

Reporting Channel

Accountability theory also provides a basis for expecting internal audit's reporting channel (primarily to the audit committee or primarily to management) to affect internal auditors' judgments. When decision makers know their audience's views, they make decisions or judgments that are consistent with those views (Klimoski and Inks 1990; Tetlock 1985), because as cognitive misers (Taylor and Fisk 1978), people prefer decision-making strategies that involve the least effort. Several studies have supported the influence of the need for approval (Jones and Wortman 1977; Workman and

Lisenmeier 1977) and the motivation of individuals to present themselves as positively as possible to those to whom they are accountable (Baumeister 1982; Schlenker 1980).

In serving in their role as an evaluator of the performance of management, the internal audit function typically reports jointly to management and the audit committee (Abbott et al. 2010). This situation may affect internal auditors' rating accuracy, since internal auditors (raters) are not held accountable for their ratings to the ultimate beneficiary (the external stakeholder) but are operating in a motivational context in which there are special pressures to achieve a certain ratings outcome from management.

Agency theory states that the role of the corporate governance actors (i.e., board of directors, audit committee, internal auditor) is to monitor management to prevent opportunistic management behavior (Cohen et al. 2008; Jensen and Meckling 1976). Thus, it is the role of the audit committee to support judgments that ensure proper financial statement reporting and disclosure. Consistent with this role, Haka and Chalos (1990) found that audit committees support a higher level of disclosure to external stakeholders than does management. DeZoort (1997) found that the audit committees indicated that the evaluation of internal control was the most important duty for the committee to fulfill. Effective internal controls are designed to ensure accurate financial reporting and reduce the risk of fraud. Abbott and Parker (2000) discussed that audit committees have a motivation to avoid financial misstatements to protect the reputational capital of their members. In addition, the audit committee is subject to potential director liability if financial statement fraud is to occur. All of the above studies support the audit committee's preference for conservative judgments relating to financial statement reporting and fraud prevention.

In addition, audit committees of public companies are required to include a report to external stakeholders in the annual proxy statement. According to the SEC, this report must include the following (SEC 2000):

- ...in the report, the audit committee must state whether the audit committee has:
- (i) reviewed and discussed the audited financial statements with management; (ii) discussed with the independent auditors the matters required to be discussed by Statement on Auditing Standards No. 61, as may be modified or supplemented; and (iii) received from the auditors disclosures regarding the auditors' independence required by Independence Standards Board Standard No. 1, as may be modified or supplemented, and discussed with the auditors the auditors' independence

This requirement may further bolster the accountability of the audit committee to the external stakeholders and cause the audit committee to favor conservative judgments.

When the internal auditor primarily reports to the audit committee chair and less so to management, under accountability theory, the internal auditor will make decisions that support the preferences of the audit committee chair, who favors more conservative judgments. The audit committee favors more conservative judgments to protect the members' reputation risk of having improper actions taken by management, avoid potential personal liability, and fulfill its responsibility to ensure proper financial reporting (see DeZoort et al. 2008). In addition, the annual report issued by the audit committee to the external stakeholders may increase the audit committee's accountability to the external stakeholders.

In terms of the reporting channel within the organization, if the internal auditor is more closely aligned with the audit committee chair, a governance entity, than with management, internal auditor judgments should be more consistent with a conservative governance focus, which aligns with both accountability theory and agency theory. If the

internal auditor is more closely aligned with management, the internal auditor's judgments should be more consistent with management's views (less conservative). The second hypothesis applies accountability theory to predict the effect of reporting relationship type on internal auditor's judgments as follows:

Hypothesis 2:

Internal auditors primarily reporting to the audit committee chair will make more conservative judgments when performing fraud and control risk assessments than internal auditors primarily reporting to management.

Research Questions

The study also includes survey questions to gather perception data from the internal auditors regarding the potential costs and benefits of issuing IARs. In addition, the instrument gathers data as to where the participants' actual internal audit function reports so as to gain insights into the current balance of reporting and to determine if the actual reporting relationship has an effect on the responses in the study. The research questions related to this survey include:

1. What is the level of IAF support for the issuance of an activities-based IAR to external stakeholders?
 - a. What are the perceived advantages and disadvantages to issuing such a report?
 - b. What would be the perceived cost of issuing such a report?
2. What is the level of IAF support for the issuance of an assurance-based IAR to external stakeholders?
 - a. What are the perceived advantages and disadvantages to issuing such a report?
 - b. What would be the perceived cost of issuing such a report?

3. Where does the balance of reporting for oversight currently reside within the respondents' IAFs?
4. Where does the balance of reporting for budget determination currently reside for the respondents' IAFs?

CHAPTER 3: METHODOLOGY

Experimental Design and Case Development

The experimental materials were composed of an informed consent, followed by a brief case study that included sections for company and industry background, financial performance, management and compensation, audit committee and external auditor, and internal controls, with 8 different versions – for each of the 4 report types and each of the 2 relationship types (4 x 2 between-subjects design).

The base case materials represented a mid-sized public company that has a competent management team and historically has an effective governance structure and results that are in line with industry performance. In addition, the company historically had clean audit opinions on its financial statements from a reputable external audit firm (the company is not an accelerated filer, so there is no external audit opinion on internal control over financial reporting²), and management compensation is comparable with industry benchmarks.

The initial case materials were developed after performing a comprehensive review of the accounting literature on the topics of IAF report types (e.g., Holt and DeZoort 2009; Archambeault et al. 2008) and reporting relationship types (e.g., Abbott et al. 2010; Beasley et al. 2009). In addition, I reviewed relevant best practices and guidance from The IIA and publicly filed external audit reports. My dissertation committee reviewed these initial case materials. Feedback was provided and incorporated into the

² This design characteristic makes the IAF's role more prominent and avoids confounding with a report from the external auditor under SOX Section 404 (b).

materials. In addition, four other academics with expertise in the area (including one who is very active in The IIA and has significant experience in practice) took the instrument and provided valuable feedback, which was incorporated into the final version of the cases.

The most significant feedback provided related to the ensuring that the manipulations were reasonable and would be understandable to practitioners, since some of the conditions contained concepts and ideas that are not consistent with current practice. For example, the notion of the internal audit function providing various reports to external stakeholders is currently not found in practice. Since an IAR does not exist, extensive design work needed to be performed to select the scope, foundation, format, and content for such a report. In order to accomplish this task, research was performed on current internal audit reports (issued internally), including the reporting standards and guidelines set by The Institute of Internal Auditors, as well as a review of the various reports and requirements for external auditor reporting. I also adapted material from Archambeault et al. (2008) related to activities-based reports.

Table 1 summarizes the 4 x 2 design that used four levels of internal audit report and two levels of internal audit reporting relationship. This design creates eight cells. Similar studies in accounting have secured approximately 15 responses per cell (e.g., DeZoort et al. 2003a, 2003b). In this study, the goal was to secure approximately 15 completed instruments per cell, for a total of approximately 120 participants (see the Results section for discussion of power and effect size).

TABLE 1
4 X 2 Experimental Design and Expected Cell Sizes

	<u>Report Type 1</u> No IAR (represents the current practice)	<u>Report Type 2</u> Internal auditors issue a descriptive activities-based internal audit report to external stakeholders	<u>Report Type 3</u> Internal auditors issue an assurance-based internal audit report to external stakeholders	<u>Report Type 4</u> Internal auditors issue a descriptive activities-based and assurance- based internal audit report to external stakeholders
<u>Relationship Type 1</u> Head of IAF effectively reports to senior management (CFO)	15 participants	15 participants	15 participants	15 participants
<u>Relationship Type 2</u> Head of IAF effectively reports to the AC chair	15 participants	15 participants	15 participants	15 participants

The online instrument was designed and administered in Qualtrics and was accessed by invited participants via an online link that was sent to them in an email request. The participants were active senior level internal audit professionals. I initially used the Atlanta Chapter of The IIA, which is a very large chapter (approximately 1,200 members) and later included two smaller chapters of The IIA (approximately 500 members for both) to reach the required number of participants. The IIA sent the experiment link along with a request letter via email. In total, three requests (included the initial one) were sent to the participants. Please see Appendices 1 for samples of request emails. The instrument included a total of 46 items; however, each participant was presented only a subset of those items depending on the cell to which they were randomly assigned (see Appendices 2).

The instrument was submitted to the Institutional Review Boards at the University of Scranton, Kennesaw State University, and The University of Alabama. Feedback from these boards was incorporated into the instrument, and the final version was approved.

Experimental Task

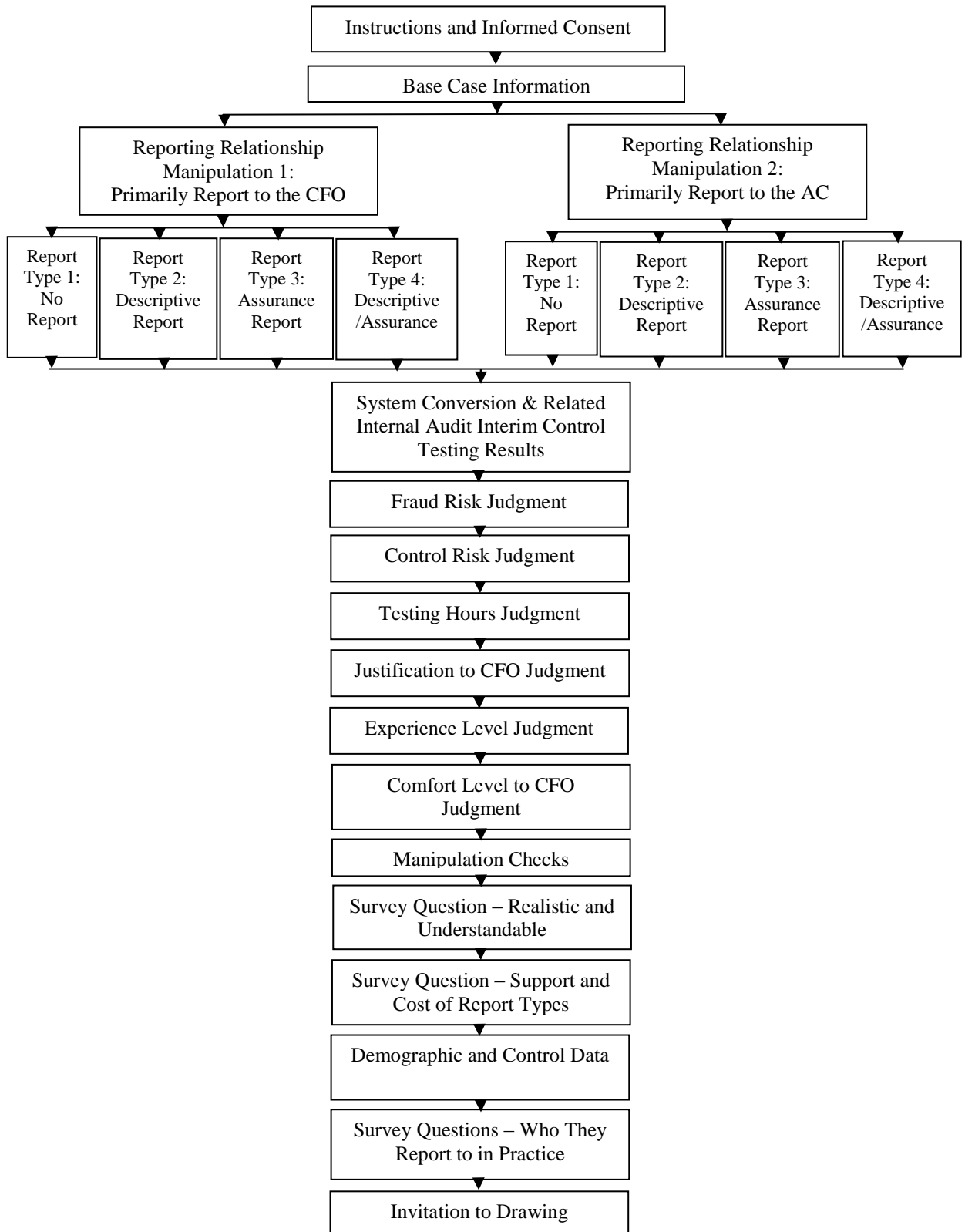
The participants were first provided the informed consent, followed by the base case information. All participants were required to acknowledge acceptance of the informed consent in order to continue with the instrument. The participants were then randomly assigned to one of the two reporting relationships and presented with that information. Next, one of the four report types was randomly presented.

After reading the report type, the participants were all presented the same information regarding a system conversion and the related results of interim control testing performed by the internal audit department. These results indicated a higher than expected error rate in a key control in the revenue cycle.

The participants were then asked to make six judgments, all of which represent dependent variables (fraud risk assessment and control risk assessment, which are the primary dependent variables; followed by testing hours, justification to the CFO, experience level of staff, and comfort level with the CFO, which are secondary dependent variables that are examined in an additional analysis section). The participants were then asked to complete two manipulation check questions (one for the relationship type manipulation and one for the report type manipulation), followed by questions to assess how realistic and understandable the case was, their support level and related cost estimate for the various report types, demographic and control data, and to what degree they report in practice to management and the audit committee in their organizations. The

instrument ended with an invitation to participate in a gift card drawing. The flow of the Qualtrics instrument is outlined in Table 2 on the following page.

TABLE 2
Instrument Flow



The two primary judgment tasks were a fraud risk assessment and a control risk assessment, fundamental assessments of the risks considered by the internal auditor. The fraud risk assessment question instructed the participants to indicate their opinion as to the level of financial statement fraud risk associated with the revenue cycle for the given fiscal year, based only on the information presented in the case. The control risk question instructed the participants to indicate their opinion as to the level of control risk associated with the revenue cycle for the given fiscal year, based only on the information presented in the case. These judgments were measured on a sliding scale from 0 to 100 (0 represents low risk, 50 represents moderate risk, and 100 represents high risk). This type of scale is common for these types of studies in the accounting literature (e.g., DeZoort et al. 2003a, 2003b, 2008).

In terms of the secondary judgments, the judgment made by the participants for the testing hours was measured on a sliding scale from -50 to 50 (-50 represents significantly fewer hours this year, 0 represents the same amount of hours, and 50 represents significantly more hours this year). The question instructed the participants to indicate how many hours they would expect to spend on the revenue cycle control testing during the current year-end internal audit as compared to the prior fiscal year-end audit. The judgment made by the participants for the importance of justification to the CFO was measured on a sliding scale from 0 to 100 (0 represents not at all important, 50 represents moderately important, and 100 represents very important). The question instructed the participants to indicate how important it would be to justify to the Chief Financial Officer the audit hours they have budgeted to audit internal control over the revenue cycle.

The judgment made by the participants for the experience level of assigned staff was measured on a sliding scale from -50 to 50 (-50 represents significantly less experience this year, 0 represents the same amount of experience, and 50 represents significantly more experience this year). The question instructed the participants to indicate the experience level of the staff they would assign to the revenue cycle control testing for the current year-end internal audit as compared to the prior fiscal year-end audit.

The judgment made by the participants for the comfort level of reporting the control testing findings to the CFO was measured on a sliding scale from -50 to 50 (-50 represents very uncomfortable, 0 represents neutral, and 50 represents very comfortable). The question instructed the participants to indicate how comfortable they would be in reporting the preliminary internal control deficiency findings (18% exceptions) to the Chief Financial Officer.

Finally, sliding scales from 0 – 100 (0 represents very unrealistic/very difficult to understand, 50 represents moderately realistic/understandable, and 100 represents very realistic/understandable) were used to measure how realistic and understandable the case was to the participants.

Independent Variables

The study includes independent variables for the various report types (REPORT TYPE) and relationship types (REPORTING RELATIONSHIP). The report types include four levels of internal audit reports:

Type 1 (NO REPORT):

No formal reporting from the internal auditor to the public (external stakeholders). This represents the existing state in practice today.

Type 2 (DESCRIPTIVE REPORT):

A written report from the internal auditor to the public describing the composition, responsibilities, and activities of the IAF as described in Archambeault et al. (2008). As part of the reporting process, this report is to be presented, discussed, and scrutinized by the audit committee prior to its presentation to the public. This report is currently not used in practice. This report represents an increased level of internal audit accountability from Type 1 to both the external stakeholders and the audit committee.

Type 3 (ASSURANCE REPORT):

A written report from the internal auditor to the public including describing certain assurances from the internal auditor on internal control effectiveness. These assurances are similar to the ones provided by the company CFO and CEO under the Sarbanes-Oxley Act Section 302. As part of the reporting process, this report is to be presented, discussed, and scrutinized by the audit committee prior to its presentation to the public. This report is currently not used in practice. This report represents an increased level of internal audit accountability from Type 2 to both the external stakeholders and the audit committee.

Type 4 (DESCRIPTIVE AND ASSURANCE REPORT):

A written report from the internal auditor to the public describing the composition, responsibilities, and activities of the IAF as described in Archambeault et al. (2008). In addition, the report includes certain assurances from the internal auditor on internal control effectiveness.

These assurances are similar to the ones provided by the company CFO and CEO under the Sarbanes-Oxley Act Section 302. As part of the reporting process, this report is to be presented, discussed, and scrutinized by the audit committee prior to its presentation to the public. This report is currently not used in practice. This report will represent an increased level of internal auditor accountability from Type 3 to both the external stakeholders and the audit committee.

The study includes two IAF reporting relationship types, each representing independent variables in the model as follows:

Type 1 (ACCOUNTABLE SENIOR MANGEMENT):

The head of the IAF has a formal reporting relationship with the Audit Committee Chair (ACC) and senior management (specifically the CFO) with the CFO taking a much more active role than the ACC. This reporting relationship type includes the dual reporting structure as described in the Institute of Internal Auditors' best practices (IIA 2010a); however, the much more active CFO oversight role is not consistent with the recommended guidance. This type of oversight role for the CFO has been identified to exist in practice as discussed in Beasley et al. (2009).

The head of the IAF discussed topics with the CFO on a frequent basis and receives feedback and direction on the scope, timing, and management of the IAF. Prior to the ACC's formal approval of the charter, risk assessment, and audit plan for the internal audit department, the CFO reviews these materials and provides feedback and an informal

approval. The head of the IAF provides direct communication to the CFO on the results of the internal audit activities or other matters determined to be necessary, including in private meetings. In addition, the head of the IAF meets with the CFO in preparation for the quarterly audit committee meetings.

The CFO can significantly influence the head of the IAF's annual performance rating, compensation adjustment, and future career advancement within the organization. The annual budget for the IAF is largely shaped by discussions between the head of the IAF and the CFO. The CFO and ACC also discuss the head of the IAF's performance and internal budget with each other, ultimately leading to formal audit committee approval.

The head of the IAF discusses topics with the ACC on a quarterly basis, primarily related to the audit committee meeting. In preparation for these meetings, the CAE and the ACC discuss the key activities performed by the internal audit function since the last meeting and any related findings that are deemed material. In practice, the ACC primarily acts as a point person between the internal audit department and the audit committee.

Type 2 (ACCOUNTABLE AUDIT COMMITTEE CHAIR):

The head of the IAF truly reports to the audit committee chair and works closely with this person throughout the year. This report more closely reflects the key components noted in the Institute of Internal Auditors'

best practice reporting structure (IIA 2010a). In this relationship type, the head of the IAF has a reporting relationship with the ACC and the CFO, with the ACC taking a much more active oversight role than the CFO. It was important to include the dual reporting component in both relationship types to make the case consistent with the Institute of Internal Auditors' best practice reporting structure and what occurs in practice.

The head of the IAF discusses topics with the ACC on a frequent basis and receives feedback and direction on the scope, nature, timing, and management of the activities of the IAF. The ACC approves the charter, risk assessment, and audit plan for the IAF. The head of the IAF provides direct communication to the ACC on the results of the IAF activities or other matters determined to be necessary, including in private meetings. In addition, the head of the IAF meets with the ACC in preparation for and during the quarterly audit committee meetings.

The ACC ultimately determines the annual performance rating, compensation adjustment, and future career advancement of the participant within the organization. The annual budget for the IAF is based on discussions between the head of the IAF and the ACC. The ACC may solicit feedback from the CFO to aid in the assessment of the head of the IAF's performance and the determination of the internal audit function's budget.

The head of the IAF discusses topics with the CFO on quarterly basis. During this discussion, the head of the IAF communicates to the

CFO the direction and support needed from the finance function to execute the IAF annual audit plan. In practice, the CFO primarily acts as an administrative point person between the IAF and the finance organization.

In addition to the manipulated independent variables, I consider several potential control variables, including participants' gender, years of professional experience, years of experience as an internal auditor, title, certification status (CIA, CPA, CMA, and CFE), educational status, industry, company size, and perceptions of the case.

Dependent Variables

In this study, I use two primary dependent variables and four additional secondary variables. The two primary variables are complex tasks that represent a significant degree of judgment and are at the core of internal audit's responsibilities (IIA 2010b). These variables are of central interest to the study and are a fraud risk assessment and a control risk assessment. The secondary variables encompass tasks of interest; however, they do not reflect the same degree of judgment or complexity as the primary variables and are included in the study to gain additional insights into the primary complex judgments.

Primary Variable 1: Fraud risk assessment (FRAUD RISK)

The participants were asked to assess the risk related to a potential fraud occurring at the company in the revenue cycle as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate your opinion as to the level of financial statement fraud risk associated with the revenue cycle

for this fiscal year (0 represents low risk, 50 represents moderate risk, and 100 represents high risk).

Primary Variable 2: Control risk assessment (CONTROL RISK)

The participants were asked to assess the risk of in the internal controls not detecting a material error in the revenue cycle as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate your opinion as to the level of control risk associated with the revenue cycle for this fiscal year (0 represents low risk, 50 represents moderate risk, and 100 represents high risk).

Secondary Variable 1: Control testing hours (TESTING HOURS)

The participants were asked to assess how many hours of control testing they would budget to perform compared with the prior year budget as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate how many hours would you expect to spend on the revenue cycle control testing during the current year-end internal audit as compared to the prior fiscal year-end audit (-50 represents significantly fewer hours this year, 0 represents the same amount of hours, and 50 represents significantly more hours this year).

Secondary Variable 2: Level of justification to the CFO (CFO JUSTIFICATION)

The participants were asked to assess how important it would be for them to justify the hours they budgeted to the CFO as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate how important it would be to justify to the Chief Financial Officer the audit hours you have budgeted to audit internal control over the revenue cycle (0 represents not at all important, 50 represents moderately important, and 100 represents very important).

Secondary Variable 3: Experience level of assigned staff (STAFF EXPERIENCE)

The participants were asked to assess what level of experience they would assign to the control testing as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate the experience level of the staff you would assign to the revenue cycle control testing for the current year-end internal audit as compared to the prior fiscal year-end audit (-50 represents significantly less experience this year, 0 represents the same amount of experience, and 50 represents significantly more experience this year).

Secondary Variable 4: Comfort level with the CFO (CFO COMFORT)

The participants were asked to assess how comfortable they would be in reporting the preliminary audit findings to the CFO as follows:

Based only on the information presented in the case materials, please slide the below bar to indicate how comfortable you would be in reporting the preliminary internal control deficiency findings (18% exceptions) to the Chief Financial Officer (-50 represents very uncomfortable, 0 represents neutral, and 50 represents very comfortable).

Control Variables

In this study, I consider several potential covariates and fixed effects that may serve as control variables, including (coding details for variables actually used are discussed further in the Results section below):

- Gender (dummy variable).
- Total Professional Experience (measured in years).
- Professional Experience as an Internal Auditor (measured in years).
- Title (categorical variable for different titles).
- Industry Segment (consulting, government, public accounting, public company, private for profit, not for profit, other) (dummy variables).
- Revenue of Company (categories based on revenues in dollars).
- Professional Certifications (CPA, CIA, CFA, CFE, CMA) (dummy variables).
- Education (dummy variables for different levels).
- Realistic Case (0 – 100 scale).

- Understandable Case (0 – 100 scale).

Model

Based on the above discussion of independent, dependent, and control variables, I use the following MANCOVA model to test my hypotheses (followed by individual ANCOVAs for fraud risk and control risk separately):

$$(FRAUD\ RISK, CONTROL\ RISK) = f (REPORT\ TYPE^1, REPORTING\ RELATIONSHIP\ TYPE^2, REPORT\ TYPE\ X\ RELATIONSHIP\ TYPE, Control\ Variables^3)$$

¹ NO REPORT, DESCRIPTIVE REPORT, ASSURANCE REPORT, DESCRIPTIVE AND ASSURANCE REPORT

² ACCOUNTABLE CFO, ACCOUNTABLE AUDIT COMMITTEE CHAIR

³ I consider variables including GENDER, TOTAL EXPERIENCE, INTERNAL AUDIT EXPERIENCE, TITLE, INDUSTRY SEGMENT, REVENUE, CERTIFICATIONS, EDUCATION, REALISTIC, UNDERSTANDABLE.

Survey Questions

After the experiment was concluded, the study included a series of survey questions. These questions provide additional insight into the topic of reporting relationships and report types as they relate to the internal auditor. In addition, the questions provide practical insights, such as those related to implementation and cost of IARs. The questions include:

1. Some have called for internal audit departments to provide an annual written report to external stakeholders that includes descriptive information about the internal audit function such as its composition,

responsibilities, accountability, activities, and resources. Please indicate by sliding the bar below, your personal level of support for such an external report (0 represents no support, 50 represents moderate support, and 100 represents full support).

- a. Measured on a sliding scale from 0 to 100.
 - b. Please explain your rationale.
2. Please indicate by sliding the bar below, how much you believe it would cost for your internal audit department to issue an annual report to external stakeholders that provides descriptive information about the internal audit function such as its composition, responsibilities, accountability, activities, and resources. (Please state the cost estimate as a percentage of your current total annual internal audit budget).
- a. Measured using a sliding scale from 0% to 300%.³
3. Some have called for internal audit departments to provide an annual written report to external stakeholders that provides positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk. Please indicate by sliding the bar below, your personal level of support for such an external report (0 represents no support, 50 represents moderate support, and 100 represents full support).
- a. Measured using a sliding scale from 0 to 100.
 - b. Please explain your rationale.

³ The 300% endpoint for the scale was determined based on feedback from an academic reviewer with significant experience in the practice of internal auditing. This was an increase from the original endpoint of 100% to recognize the possibility of a very large effect on the IAF budget.

4. Please indicate by sliding the bar below, how much you believe it would cost for your internal audit department to issue an annual report to external stakeholders that provides positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk. (Please state the cost estimate as a percentage of your current total annual internal audit budget).
- a. Measured using a sliding scale from 0% to 300%.
5. Please indicate by sliding the bar below, the degree to which management and the audit committee actively oversee the Internal Audit Department in your organization (0 represents oversight is provided almost exclusively by management, 50 represents equal oversight by management and the audit committee, and 100 represents oversight is provided almost exclusively by the audit committee).
- a. Measured on a sliding scale from 0 to 100.
6. Please indicate by sliding the bar below, which group has the greatest influence over the determination of the Internal Audit Department's budget in your organization (0 represents it is almost exclusively influenced by management, 50 represents it is equally influenced by management and the audit committee, and 100 represents it is almost exclusively influenced by the audit committee).
- a. Measured on a sliding scale from 0 to 100.

Participants

The study's participants were active senior level internal audit professionals. I initially used the Atlanta Chapter of The IIA, which is a very large chapter (approximately 1,200 members) and later included two smaller chapters of The IIA (approximately 500 members for both) to reach the required number of participants. Since this study required the participants to make some complex judgments, I needed to ensure the population primarily included participants with a high level of experience (e.g., typically 5 plus years). The IIA sent the experiment to the following groups from their membership database:

- Chief Audit Executives,
- Directors of Auditing,
- Audit Managers,
- Audit Staff,
- IT Audit Directors,
- IT Audit Managers,
- IT Audit Staff,
- Corporate Management, and
- Audit Committee Members.⁴

The individuals in these groups were sent an email invitation to participate in the study from the President of their related IIA chapter. In total, three requests (included the initial one) were sent to the participants. Please see Exhibit I for samples of request emails. As of January 18, 2012, I received 152 fully completed experiments, resulting in

⁴ Audit staff, IT audit staff, corporate management, and audit committee members are not part of our main target group, and we had very few usable responses from such individuals ($n = 10$). As noted below, respondent title and years of internal audit experience are not associated with the dependent variables. In addition, if I delete all observations with such "other titles" or no title indicated, the MANCOVA results ($n = 96$) are consistent with those in Table 8 below, except that PUBLIC COMPANY becomes significant ($p = 0.0292$).

a response rate of 13% (which is comparable to other online instruments sent to internal auditors, e.g., Beasley et al. (2005)). The mean completion time for the experiment was 45.1 minutes. The fully completed responses for each of the eight cells in the 4 X 2 experimental design are shown in Table 3 below:

TABLE 3
Fully Completed Experiments

	<u>Report Type 1</u> No IAR (represents the current practice)	<u>Report Type 2</u> Internal auditors issue a descriptive activities-based internal audit report to external stakeholders	<u>Report Type 3</u> Internal auditors issue an assurance-based internal audit report to external stakeholders	<u>Report Type 4</u> Internal auditors issue a descriptive activities-based and assurance- based internal audit report to external stakeholders
<u>Relationship Type 1</u> Head of IAF effectively reports to senior management (CFO)	21 participants	15 participants	16 participants	30 participants
<u>Relationship Type 2</u> Head of IAF effectively reports to the AC chair	17 participants	16 participants	14 participants	23 participants

CHAPTER 4: DATA ANALYSIS AND FINDINGS

Manipulation Checks

All of the 152 participants were asked two multiple-choice questions to evaluate the effectiveness of the manipulations in the case. The first question focused on the reporting relationship manipulation as follows:

Q23 – Manipulation Check – Reporting Relationship

In this case, who most actively oversees the Internal Audit Department?

- ☐ Chief Financial Officer (CFO)
- ☐ Audit Committee Chair (ACC)

The second question focused on the report type manipulation as follows:

Q24 – Manipulation Check – Report Type

In this case, your Internal Audit Department produces the following voluntary (not required) reports to external stakeholders:

- ☐ No reporting to external stakeholders – all internal audit reports are for internal use only.
- ☐ An overall annual written report to external stakeholders that includes only descriptive information about the internal audit function.
- ☐ An overall annual written report to external stakeholders that provides only positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk.
- ☐ An overall annual written report to external stakeholders that includes both descriptive information about the internal audit function and provides positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk.

The response choices for both questions were randomized for each participant.

Out of the total of 152 completed experiments, nine failed the reporting relationship

manipulation check (5.9%) and 35 failed the report type manipulation check (23%). This rate of failure is consistent with some accounting studies targeting high-level participants (e.g., DeZoort et al. 2003a, 2003b, 2008). An investigation of the 35 report type failures revealed that five (represents 3.3% of the total completed experiments) of them were related to the participant selecting the report type 1 (no IAR report) condition when they were presented one of the IAR report conditions (type 2, 3, and 4) or vice versa. The 30 remaining errors (19.7% of the total completed experiments) related to participants who were presented one of the IAR report conditions and incorrectly selected a different IAR report condition. This suggests that the failure rate may be attributable to the fact that IARs to external stakeholders are not used in practice, and the participants were very likely to be unfamiliar with externally-issued IARs before reading the case materials. Thus, one could expect some degree of difficulty in understanding the report types. After eliminating both the reporting relationships and the report type manipulation checks failures, 108 participants were left for analysis.⁵

Table 4 shown below summarizes the number of participants who completed the instrument and passed all manipulation checks. The number of responses for each cell is consistent with some previous studies in accounting (e.g., DeZoort et al. 2003a, 2003b), but see below for additional discussion of power and effect size.

⁵ If I run the MANCOVA on the full sample (n = 151 due to one incomplete response), the results are consistent with those presented in Table 8 below, except that REPORT TYPE (p = 0.3517) and REALISTIC (p = 0.1994) are no longer significant. The insignificance of REPORT TYPE appears reasonable given that 35 participants failed the report type manipulation check question.

TABLE 4
Fully Completed and Passed All Manipulation Checks

	<u>Report Type 1</u> No IAR (represents the current practice)	<u>Report Type 2</u> Internal auditors issue a descriptive activities-based internal audit report to external stakeholders	<u>Report Type 3</u> Internal auditors issue an assurance-based internal audit report to external stakeholders	<u>Report Type 4</u> Internal auditors issue a descriptive activities-based and assurance- based internal audit report to external stakeholders
<u>Relationship Type 1</u> Head of IAF effectively reports to senior management (CFO)	15 participants	13 participants	12 participants	17 participants
<u>Relationship Type 2</u> Head of IAF effectively reports to the AC chair	12 participants	14 participants	13 participants	12 participants

In summary, approximately 1,200 individuals were invited to participate in the experiment; 286 elected to participate and were presented the reporting relationship manipulation (142 were presented the CFO version and 144 the ACC version). After completing that manipulation, 281 continued taking the experiment and were presented the report manipulation (68 were presented the no IAR version, 77 the descriptive IAR, 72 the assurance IAR, and 64 the descriptive and assurance IAR). The participants continued with the experiment, with 152 fully completing the instrument and 108 fully completing the instrument and passing both manipulation checks. The results and analyses that follow are based on the sample of 108 participants that passed the manipulation checks.

Participants' Perceptions of the Case

Two questions were used to assess the participants' perceptions of case realism and understandability. Based on a sliding scale from 0-100 (0 represents very unrealistic,

50 represents moderately realistic, and 100 represents very realistic), the participants found the case to be realistic (mean of REALISTIC = 76.77, SD of 18.54; only one participant scored lower than 25 and five scored lower than 50). Based on a sliding scale from 0-100 (0 represents very difficult to understand, 50 represents moderately understandable, and 100 represents very understandable), participants found the case to be understandable (mean of UNDERSTANDABLE = 85.91, SD of 14.05; no participants scored lower than 50). Both the means are significantly higher than the scale midpoint of 50 ($p < 0.001$). In addition, one-way ANOVAs indicate no significant differences in REALISTIC ($p = 0.5475$) or UNDERSTANDABLE ($p = 0.5015$) across the eight case versions.

Demographics

Demographic information for the 108 participants is shown in Table 5 below. The participants were almost equally split between male (49.1 percent) and female (50.1 percent) and were very experienced (83.3 percent had over 10 years of professional experience, and 58.3 percent had over 10 years of internal audit experience). The participants typically held high level titles (67.6 percent held titles of Manager or higher in the IAF) and represented organizations of varying size and business segments (with the majority working for companies with more than \$1 billion in revenues). The participants held numerous professional certifications (82.4 percent held at least one certification), with the CIA (58.3 percent) and CPA (57.4 percent) designations being the most predominant. The participants were well educated (many held some form of an advanced degree).

TABLE 5
Demographic Information

Gender	Male	52	49.1%
	Female	54	50.9%
Total Years of Professional Experience	< 5	6	5.6%
	5 – 10	12	11.1%
	11 – 15	18	16.7%
	16 – 20	20	18.5%
	21 – 25	16	14.8%
	> 25	36	33.3%
Years of Professional Experience in Internal Audit	< 5	14 ⁶	13.0%
	5 – 10	31	28.7%
	11 – 15	23	21.3%
	16 – 20	16	14.8%
	21 – 25	9	8.3%
	> 25	15	13.9%
Current Title	Chief Audit Executive	21	19.4%
	Director of Internal Audit	32	29.7%
	Manager of Internal Audit	20	18.5%
	Accounting/Consulting Firm Partner	5	4.6%
	Accounting/Consulting Firm Senior Manager	1	0.9%
	Accounting/Consulting Firm Manager	1	0.9%
	Senior Internal Auditor	16	14.8%
	Information Technology Auditor	2	1.9%
	Senior Business Analyst	2	1.9%
	Other	8	7.4%
Business Segment	Consulting	7	6.5%
	Government	14	13.0%
	Public Accounting	1	0.9%
	Public Company	49	45.4%
	Private For-Profit Company	24	22.2%
	Not-For-Profit	6	5.6%
	Other	14	13.0%

⁶ If these 14 participants are deleted, the results of the MANCOVA in Table 8 are unaffected, except that PUBLIC COMPANY has $p = 0.234$.

Annual Revenue	Less than \$10 million	4	3.8%
	\$10 million to \$50 million	5	4.7%
	\$51 million to \$100 million	4	3.8%
	\$101 million to \$200 million	7	6.6%
	\$201 million to \$300 million	3	2.8%
	\$301 million to \$400 million	3	2.8%
	\$401 million to \$500 million	9	8.5%
	\$501 million to \$1 billion	15	14.2%
	Over \$1 billion	56	52.8%
Professional Certifications	CIA	63	58.3%
	CFA	3	2.8%
	CFE	15	13.9%
	CMA	3	2.8%
	CPA	62	57.4%
	None	19	17.6%
Educational Status	Undergraduate Degree in Accounting	64	59.3%
	Other Undergraduate Degree	26	24.1%
	MBA	35	32.4%
	Masters in Accountancy	18	16.7%
	Masters in Taxation	1	0.9%
	Other Masters Degree	8	7.4%
	Doctoral Degree in Accounting	2	1.9%
	Other Doctoral Degree	0	0.0%

Descriptive Statistics

Descriptive statistics for the primary dependent variables (fraud risk assessment and control risk assessment) are shown in Table 6. Using one-way ANOVAs (as shown in Table 7), the differences between the means are analyzed and discussed below.

Fraud Risk Assessment

Using a one-way ANOVA, the fraud risk assessment means for the report type condition (no IAR type 1 mean of 64.70, descriptive IAR type 2 mean of 70.78, assurance IAR type 3 mean of 78.72, and descriptive and assurance type 4 mean of

74.93) were different with marginal significance ($F = 2.14$, $p = 0.0995$), justifying further investigation using t-tests.

Using two sample t-tests (not tabulated), there were significant differences between report type 1 and report type 3 ($p = 0.0092$), and report type 1 and report type 4 ($p = 0.0277$). A marginally significant difference between report type 2 and report type 3 ($p = 0.0948$) was also found. No significant differences were found between report type 1 and report type 2 ($p = 0.1997$), report type 2 and report type 4 ($p = 0.2193$), and report type 3 and report type 4 ($p = 0.7922$). Overall, these univariate results are partially consistent with Hypotheses 1A – 1C; however, multivariate testing has not yet been performed.

The fraud risk assessment means for the relationship type conditions (CFO – type 1 mean of 68.65 and ACC type 2 mean of 76.73) were significantly different ($F = 4.58$, $p = 0.0346$), which is consistent with Hypothesis 2.

Control Risk Assessment

The control risk assessment means for the report type conditions (no IAR type 1 mean of 83.11, descriptive IAR type 2 mean of 87.93, assurance IAR type 3 mean of 87.08, and descriptive and assurance type 4 mean of 82.90) were not significantly different ($F = 1.20$, $p = 0.3135$), inconsistent with H1A – H1C. The control risk assessment means for the relationship type condition (CFO type 1 mean of 81.51 and ACC type 2 mean of 89.27) were significantly different ($F = 11.37$, $p = .0010$), which is consistent with Hypothesis 2.

TABLE 6
Descriptive Statistics

		Fraud Risk	Control Risk
Report Type 1 No External Report	n	27	27
	Mean	64.70	83.11
	S.D.	19.82	13.38
Report Type 2 Descriptive Report	n	27	27
	Mean	70.78	87.93
	S.D.	23.88	8.74
Report Type 3 Assurance Report	n	25	25
	Mean	78.72	87.08
	S.D.	19.62	13.32
Report Type 4 Descriptive and Assurance Report	n	29	29
	Mean	74.93	82.90
	S.D.	15.30	13.75
Relationship Type 1 Chief Financial Officer	n	57	57
	Mean	68.65	81.51
	S.D.	18.72	13.04
Relationship Type 2 Audit Committee Chair	n	51	51
	Mean	76.73	89.27
	S.D.	20.50	10.59

TABLE 7
One-way ANOVAs

		Fraud Risk Assessment	Control Risk Assessment
Report Type	F-statistic	2.14	1.2
	p-value	0.0995	0.3135
Relationship Type	F-statistic	4.58	11.37
	p-value	0.0346	0.001

MANCOVA Results

The model used in the study included multiple dependent variables (FRAUD RISK, CONTROL RISK) that are correlated ($r = 0.4683$, $p < 0.001$), as well as independent variables that include both continuous and nominal variables. As a result, I

used MANCOVA to assess the overall relationships. Prior research does not provide clear insights as to what variables should be included as control variables; therefore, I performed exploratory analyses using the two primary dependent variables (fraud risk assessment and control risk assessment) and report type and relationship type as independent variables. I then added each potential control variable as an additional independent variable one at a time to identify any variables with significant effects. I did this for all of the potential control variables.

The two control variables that were significantly related to the dependent variables were public company (fixed effect; = 1 for public company respondents, else 0) and realistic (covariate; participants' assessments of the realism of the internal control issue presented in the case using a scale from 0 to 100). The degree of oversight and requirements for public companies are significantly different from those of private companies. Using the public company variable as a control variable is consistent with that difference in practice, and the hypothetical case uses a public company setting. In addition, since the case is an experiment whereby the participants are asked to evaluate a specific internal control challenge, their perception of case realism is also an important control variable, as it may reflect their prior experiences with such issues and expertise in evaluating such issues.

The final MANCOVA model used in the study includes the two primary dependent variables of fraud risk assessment and control risk assessment, report type, reporting relationship type, the interaction of the IAR report type and relationship type, and the two control variables of public company and realistic:

(FRAUD RISK, CONTROL RISK) = f (REPORT TYPE¹, REPORTING
 RELATIONSHIP TYPE², REPORT TYPE X RELATIONSHIP TYPE,
 PUBLIC COMPANY, REALISTIC)

¹ NO REPORT, DESCRIPTIVE REPORT, ASSURANCE REPORT,
 DESCRIPTIVE AND ASSURANCE REPORT

² ACCOUNTABLE CFO, ACCOUNTABLE AUDIT COMMITTEE CHAIR

The results of the MANCOVA are shown in Table 8 below. The results of the model are significant, with $F = 3.12$, $p < .00001$. Four of the five variables are individually significant, with report type ($F = 2.25$, $p = 0.0399$) and relationship type ($F = 5.16$, $p = 0.0074$) affecting the participants' fraud and control risk assessments. The interaction between report type and relationship type is also significant ($F = 2.49$, $p = 0.0240$); see the ANCOVA analyses below for further discussion of the interaction. The covariate REALISTIC is significant ($F = 4.96$, $p = 0.0089$), with the participants making more conservative risk assessments as their perceptions of case realism increased. Public company has $F = 2.32$ and $p = 0.1034$.⁷ Observed power is 0.78 for REPORT TYPE, 0.82 for RELATIONSHIP TYPE, and 0.82 for REPORT TYPE X RELATIONSHIP TYPE, all consistent with the typical benchmark of 0.80 (e.g., UCLA 2012c).

⁷ When I add other potential control variables to this model one at a time (e.g., gender, professional experience, internal audit experience, title, industry (beyond public company), company revenues, professional certification, education, case understandability, perceptions of IARs, and actual IAF oversight in the participant's organization), each is insignificant ($p > 0.05$). Masters in accounting, masters in tax, and CPA were marginally significant ($p < 0.10$), but did not affect the other results.

TABLE 8
Overall MANCOVA Results
DVs = Fraud Risk and Control Risk
N = 108

	F-statistic	p-value
MODEL	3.12	<.00001
REPORT TYPE	2.25	0.0399
RELATIONSHIP TYPE	5.16	0.0074
REPORT TYPE X RELATIONSHIP TYPE	2.49	0.0240
PUBLIC COMPANY	2.32	0.1034
REALISTIC	4.96	0.0089

ANCOVAs and Planned Contrast Testing

In order to test the hypotheses, I use individual ANCOVAs for fraud risk assessment and control risk assessment, using the controls and interaction term from the MANCOVA model. In addition, I use planned contrast testing to test the individual report type levels (levels 1, 2, 3, and 4). For example, when comparing level 1 to level 2 the contrasts were coded 1, -1, 0, 0 (UCLA 2012a). Hypotheses H1A – H1C predict an ordering in that fraud risk and control risk assessments are expected to be in the following order by report type: no report < activities-based report < assurance-based report < activities-based and assurance-based report. The ANCOVA results are shown in Table 9, and the planned contrast testing results are shown in Table 10 below. The adjusted R-squares are 14.43% and 19.89% for the fraud risk and control risk ANCOVAs, respectively.

Overall, the ANCOVA results for REPORT TYPE are significant for fraud risk assessment ($F = 3.23$, $p = 0.0259$) and are not significant for control risk assessment ($F =$

1.70, $p = 0.1727$).⁸ Thus, H1A – H1C are not supported for control risk, and planned contrasts are needed to identify the specific significant differences for fraud risk. As shown in Table 10, the planned contrasts reveal significant differences ($p < 0.05$) across the levels of report type, except for no report versus activities-based report ($p = 0.3679$) and assurance-based report versus activities-based and assurance-based report ($p = 0.6608$). Thus, there is considerable support for H1. Specifically, internal auditors' fraud risk assessments are higher (more conservative) when the IAR is assurance-based or both activities and assurance-based than when the report is only activities-based or there is no external report.

Hypothesis 2 predicts that internal auditors primarily reporting to the audit committee chair will make more conservative judgments than internal auditors primarily reporting to management. This hypothesis is strongly supported for control risk assessment ($F = 10.11$, $p = 0.002$) and is marginally supported for fraud risk assessment ($F = 3.53$, $p = 0.0633$). Thus, the results indicate that when the Chief Audit Executive reports primarily to the Audit Committee Chair (as opposed to management), internal auditors' control risk assessments are higher (more conservative). This relation is marginally significant for fraud risk assessments.⁹

Overall, there is evidence that internal audit report type and reporting relationship each affect certain internal auditor judgments, increasing the conservatism of certain risk assessments when accountability to stakeholders or the audit committee increases.

⁸ For REPORT TYPE, the observed power is 0.73, and Cohen's $f = 0.31$, indicating an effect size between medium (0.25) and large (0.40) (UCLA 2012b). For RELATIONSHIP TYPE, observed power is 0.46, and Cohen's $f = 0.19$, indicating an effect size between small (0.10) and medium (0.25). Thus, the observed power for RELATIONSHIP TYPE is low, biasing against finding a significant effect.

⁹ For RELATIONSHIP TYPE, the observed power is 0.88, and Cohen's $f = 0.32$, indicating an effect size between medium (0.25) and large (0.40) (UCLA 2012b).

As shown in Table 9 below, PUBLIC COMPANY is significant in the control risk ANCOVA ($F = 4.18$, $p = 0.0436$) and not significant in the fraud risk ANCOVA ($F = 0.05$, $p = 0.820$). This result may be due to the extreme focus on internal controls for public companies in the wake of Sarbanes-Oxley and Section 404. In addition, Hermanson et al. (2012) find evidence of stronger internal controls in public companies than in other organizations. Therefore, the control weaknesses presented in the case might appear to be more sensitive (negative) to participants working in public companies.

The covariate REALISTIC is significant in the fraud risk ANCOVA ($F = 10.02$, $p = 0.002$) and not significant in the control risk ANCOVA ($F = 1.80$, $p = 0.1834$). It is possible that greater case realism is associated with greater appreciation of the potential for fraud in the revenue scenario.

Finally, there is a significant ($p = 0.0046$) interaction in the control risk ANCOVA, REPORT TYPE X RELATIONSHIP TYPE.¹⁰ Table 11 presents the means and standard deviations of CONTROL RISK for each of the eight cells. As the table illustrates, for the CFO relationship type, the mean value of the control risk assessment for the no report type is 84.07. This value is statistically the same at 87.62 for Report Type 2 and then statistically decreases ($p = 0.0553$ two-tailed) to 78.17 for Report Type 3 and 76.94 for Report Type 4. Thus, the control risk assessment *declines* once the IAR includes assurance, which is inconsistent with the expected pattern. In this condition, the IAF reports primarily to the CFO, and the CFO is the leader of the project that is the subject of the internal control testing.

Conversely, under the ACC relationship type, the control risk mean marginally increases from Report Type 1 of 81.92 to Report Type 2 of 88.12 ($p = 0.0941$). The mean

¹⁰ For REPORT TYPE X RELATIONSHIP TYPE, observed power is 0.88.

significantly increases from Report Type 2 to Report Type 3 at 95.31 ($p = 0.0079$) and holds at 91.33 for Report Type 4. Thus, in the audit committee chair condition, the control risk assessment *increases* once the IAR includes assurance, consistent with the expected pattern.^{11, 12}

TABLE 9
ANCOVA Results
Fraud Risk and Control Risk
 $N = 108$

	DV = Fraud Risk		DV = Control Risk	
	F-statistic	p-value	F-statistic	p-value
MODEL	3.00	0.0033	3.95	0.0003
REPORT TYPE	3.23	0.0259	1.70	0.1727
RELATIONSHIP TYPE	3.53	0.0633	10.11	0.002
REPORT TYPE X RELATIONSHIP TYPE	1.55	0.2069	4.61	0.0046
PUBLIC COMPANY	0.05	0.8202	4.18	0.0436
REALISTIC	10.02	0.0021	1.80	0.1834

¹¹ The Breusch-Pagan test indicates the presence of heteroskedasticity in both ANCOVA models, while the Levene test indicates heteroskedasticity only in the Control Risk model. Accordingly, I conducted two sensitivity tests. First, I converted the Fraud Risk and Control Risk variables to ranks and reran the MANCOVA and ANCOVA models using the ranks as the dependent variables (see Conover 1980; DeZoort et al. 2003a, 2003b). The results are consistent with those reported in Tables 8 and 9 (Public Company is not significant in the MANCOVA). Second, I ran regression models using robust standard errors (e.g., see DeZoort et al. 2003b). The models I ran were: Fraud Risk [or Control risk] = f (Report Type [two dummy variables, Activities and Assurance], Relationship Type, Realistic, and Public Company). In the fraud risk model, Assurance, Relationship Type, and Realistic are related to Fraud Risk ($p < 0.05$). In addition, the coefficient on Assurance is greater than the coefficient on Activities ($p = 0.085$). These results are similar to those in Table 9. In the Control Risk model, Relationship Type ($p < 0.001$) and Public Company ($p = 0.063$ two-tailed) are related to Control risk. These results also are similar to those presented in Table 9.

¹² If the interaction terms in Table 9 are deleted, the Table 9 results for the other variables are similar, as are the contrast testing results in Table 10. Also, if I run very simple ANOVAs (i.e., Fraud Risk [Control risk] = f (Report Type, Relationship Type)), the results are as follows. In the Fraud Risk model, Report Type has $p = 0.1001$ and Relationship Type has $p = 0.0363$. The contrast tests for Report Type reveal differences between Type 1 and Type 3 ($p = 0.0215$) and between Type 1 and Type 4 ($p = 0.0621$). In the Control Risk model, Relationship Type has $p = 0.0018$. Thus, the pattern of results is consistent with that reported in Tables 9 and 10, although somewhat weaker for Report Type. The MANOVA results for a simple model (Fraud Risk, Control Risk = f (Report Type, Relationship Type)) are similar to the simple model ANOVAs – Report Type has $p = 0.1267$ (except $p = 0.0660$ using Roy's largest root), and Relationship Type has $p = 0.0060$. Thus, the inclusion of the covariates produces stronger results for Report Type and Relationship Type.

TABLE 10
Planned Contrast Testing to Isolate Effect of Report Type on Fraud Risk

	DV = Fraud Risk	
	F-statistic	p-value
Report 1 vs. Report 2 – No report vs. activities-based	0.90	0.3679
Report 1 vs. Report 3 – No report vs. assurance-based	4.38	<.00001
Report 1 vs. Report 4 – No report vs. activities-based and assurance-based	4.77	<.00001
Report 2 vs. Report 3 – Activities-based vs. assurance-based	12.3	0.0007
Report 2 vs. Report 4 - Activities-based vs. activities-based and assurance-based	3.92	0.0002
Report 3 vs. Report 4 – Assurance-based vs. activities-based and assurance-based	0.44	0.6608

TABLE 11
REPORT TYPE X RELATIONSHIP TYPE in Control Risk ANCOVA ($p = 0.0046$)
Control Risk Means by Cell

		Report Types							
		Type 1 No Report		Type 2 Descriptive Report		Type 3 Assurance Report		Type 4 Descriptive and Assurance Report	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Relationship	Type 1 - CFO	84.07	12.35	87.61	9.65	78.17	13.588	76.94	14.06
Types	Type 2 - ACC	81.92	15.03	88.21	8.16	95.31	5.76	91.33	7.81

Additional Testing of Report Type

In addition to testing the defined hypotheses, I performed additional testing of the effect of having only two report types (REPORT TYPE01; 0 = no report, 1 = any type of external IAR). This test may be useful to practice to determine whether the mere presence

of *any* external report to external stakeholders has an effect fraud risk or control risk assessments. I run separate ANCOVAs for fraud risk and control risk, similar to the ones above, but replacing REPORT TYPE with REPORT TYPE01.

The results (not tabulated) indicate that the presence of any type of external internal audit report to external stakeholders has a significant effect on the judgments made by internal auditors when performing fraud risk assessments ($p = 0.0067$), but not when performing control risk assessments ($p = 0.1219$).

ANCOVA Results with Four Secondary Dependent Variables

In order to provide additional insight into the effects of report type and relationship type, I use individual ANCOVAs for the four secondary dependent variables, using the controls and interaction term from the MANCOVA model. The ANCOVA results for control testing hours and justification to the CFO are shown in Table 12, and the planned contrast testing results (when report type is at least marginally significant) are shown in Table 13 below.¹³ The ANCOVA models for control testing experience level and comfort level with CFO are not significant (model p -values = 0.5008 and 0.0984, respectively) and are not tabulated.

The ANCOVA results for REPORT TYPE are marginally significant for control testing hours ($F = 2.67$, $p = 0.0519$) and justification to the CFO ($F = 2.43$, $p = 0.0699$). As shown in Table 13, the planned contrasts for control testing hours reveal significant

¹³ The Breusch-Pagan and Levene tests indicate the presence of heteroskedasticity in the Control Testing Hours ANCOVA in Table 12. Accordingly, I conducted two sensitivity tests. First, I converted the Control Testing Hours variable to ranks and reran the ANCOVA model using the ranks as the dependent variable (see Conover 1980; DeZoort et al. 2003a, 2003b). The results for Report Type are no longer significant. Second, I ran a regression model using robust standard errors (e.g., see DeZoort et al. 2003b). The model I ran was: Control Testing Hours = f (Report Type [two dummy variables, Activities and Assurance], Relationship Type, Realistic, and Public company). The overall model was not significant ($p = 0.1314$). Based on these results, the Control Testing Hours ANCOVA results in Table 12 and the related planned contrasts in Table 13 should be interpreted with caution.

differences ($p < 0.05$) across report type one and report type two, report type one and report type three, report type one and report type four. The planned contrasts reveal no significant differences ($p > 0.05$ in all cases) across the levels of report type for justification to CFO (report type three and four are marginally different, $p = 0.0766$). The ANCOVA results for RELATIONSHIP TYPE are not significant for control testing hours ($F = 0.16$, $p = 0.6914$) and justification to CFO ($F = 0.50$, $p = 0.4792$). Overall, the results in Tables 12 and 13, along with those in footnote 6, provide very little evidence of any meaningful effects of report type on these secondary dependent variables.

TABLE 12
ANCOVA – Control Testing Hours and Justification to CFO

	Control Testing Hours		Justification to CFO	
	F-statistic	p-value	F-statistic	p-value
MODEL	2.04	0.0427	2.45	0.0145
REPORT TYPE	2.67	0.0519	2.43	0.0699
RELATIONSHIP TYPE	0.16	0.6914	0.50	0.4792
REPORT TYPE X RELATIONSHIP TYPE	1.93	0.1297	2.03	0.1152
PUBLIC COMPANY	4.8	0.0309	3.32	0.0716
REALISTIC	0.08	0.7742	1.36	0.2457

TABLE 13
Planned Contrast Testing – Control Test Hours and Justification to CFO

	Control Testing Hours		Justification to CFO	
	F-statistic	p-value	F-statistic	p-value
Report 1 vs. Report 2 – No report vs. activities-based	3.99	0.0484	0.00	0.997
Report 1 vs. Report 3 – No report vs. assurance-based	7.77	0.0064	2.25	0.1368
Report 1 vs. Report 4 – No report vs. activities-based and assurance-based	9.64	0.0025	0.17	0.6777
Report 2 vs. Report 3 – Activities-based vs. assurance-based	0.81	0.3698	2.22	0.1397
Report 2 vs. Report 4 – Activities-based vs. activities-based and assurance-based	1.56	0.2153	0.17	0.6767
Report 3 vs. Report 4 – Assurance-based vs. activities-based and assurance-based	0.12	0.34	3.2	0.0766

Survey Results

In addition to the experiment materials, the instrument included eight survey questions to assess the participants' support level for the issuance of various IARs, to understand the perceived costs associated with issuing various IARs, and to gain insight as to where the internal audit function currently reports in practice.

Since public companies are subject to a higher degree of oversight (e.g., Securities and Exchange Commission and Public Company Accounting Oversight Board) and typically have more resources and stronger controls than do non-public companies (e.g., Hermanson et al. 2012), responses to these survey questions may vary depending on whether the respondent works for a public or non-public company. I present the descriptive statistics segmented by these two groups (public and other) in Table 14 and perform one-way ANOVAs to identify significant differences between groups.

Descriptive IAR

As shown in Table 14, participants working for public companies show a moderate level of support for the issuance of a descriptive IAR (mean = 46.35, S.D. = 29.41), and non-public participants show a higher than moderate level of support (mean = 56.85, S.D. = 30.41). Both groups have high standard deviations, indicating that support for a descriptive IAR widely varies among the participants. The one-way ANOVA indicates that the two means of the groups are marginally different, ($F = 3.22$, $p = 0.076$).

The most frequent reasons stated for *support* of a descriptive IAR include recognition and elevation of the IAF (19 respondents), improved corporate governance (15 respondents), and benchmarking opportunities (3 respondents).¹⁴

Select participants' responses to support reasons noted above included:

IAF Recognition and Elevation

A report like this to external stakeholders would make the internal audit department much more important. This would be a great move.

All stakeholders should have an understanding of the Internal Audit function, its role and responsibilities, organizational and reporting structure, resource skills and expertise, and the annual efforts completed.

1) Believer in transparency and disclosure. 2) May help in ensuring that department is adequately staffed and resourced. 3) Motivating tool to move the department forward.

Improved Corporate Governance

Internal Audit reviews controls at a level few other organizations can. IA is also the only organization with a holistic perspective of controls. External stakeholders should receive a report from IA indicating what was reviewed to assure them the company is not in the habit of by-passing key controls, especially during a software conversion.

¹⁴ Open-ended questions were coded independently by two investigators. These two sets of codes were compared and any discrepancies were discussed and resolved. There were very few discrepancies noted.

Such information might provide the user with more assurance regarding the governance and oversight conditions within a company. However, this information may become as biased as the Management Discussion and Analysis section of the financial statements as the internal auditors may be constrained not to air the full extent of the company's "dirty laundry".

1) To promote the independence of internal audit department. 2) Preventive mitigation of fraud risk 3) The Internal Audit [function] has better experience and insight and understanding of the operations, systems, financials and related issues and are in position to provide more accurate and reliable report about the organization than any external parties.

Benchmarking Opportunities

It will assist stakeholders to better understand the relevance of internal audit departments to organizations and provide data for benchmarking.

The most frequent reasons stated for a *lack of support* for a descriptive IAR include limited value (10 respondents), not the role of the IAF (8 respondents), cost/time/resources (2 respondents), and lack of organizational support (2 respondents).

Select participants' responses to support reasons noted above included:

Limited Value

Most external stakeholders do not even review the annual reports. If they do, they look for the external auditor opinion. Unless there is some regulatory requirement for internal audit to produce such a report, it would seem doing so would merely be a "make work" effort.

I'm not sure that this information would be relevant to external stakeholders. The information would surely be relevant to the external auditors, but stakeholders should be able to rely on the external auditor's opinion.

Based upon the info above, this would appear to be a fairly limited report containing only limited insight into the function.

Not the Role of the IAF

I've always been of the opinion that Internal Audit serves as the eyes and ears of management. To that end, management should not be obliged to answer to external stakeholders.

External reporting is the role of the external auditors. Internal auditors are a management tool for monitoring and assurance. Knowing that reports would be seen by external stakeholders which may ultimately be used for negative purposes, IA would face resistance in obtaining the necessary open communications with their clients.

Internal audit works for the management of the company. Reporting to external stakeholders should be done by company management and/or by the external auditors.

Cost/Time/Resources

My department has too many requests now and do not need more on our plate.

Lack of Organizational Support

Not really sure of how much support I would receive to provide to this idea. I wouldn't want to publish sensitive audit material to external parties and the financial guidance already establishes the reports that need to be shared with external sources. Without providing detail, how helpful would the report be to stakeholders? And I'm worried about the CFO's influence over the content of the report.

The two groups' mean estimates of the cost of issuing a descriptive IAR (public mean = 17.71, non-public mean = 17.37) are not statistically different ($F = 0.004$, $p = 0.95$). The standard deviations are high (public S.D. = 30.10, non-public S.D. = 24.95), indicating variability among the respondents. Overall, the mean estimated cost to issue a descriptive IAR is between 17 – 18%, and the median was 10 – 12%, of the current IAF budget, which is a significant cost, considering that the report would share only information about internal audit's activities.

Assurance IAR

As shown in Table 14, the level of support for issuing an assurance IAR is less than the scale midpoint of 50 for both public (mean = 35.16, S.D. 26.33) and non-public (mean = 38.07, S.D. = 30.87) participants. The degree of variability among respondents is

also high. The mean support for an assurance IAR is not statistically different between the two groups ($F = 0.27$, $p = 0.61$). The most frequent reasons stated for *support* of an assurance IAR include improved corporate governance (7 respondents) and recognition and elevation of the IAF (3 respondents). The participants' direct quotations for these reasons were similar to those provided for the support of the descriptive report above.

The most frequent reasons stated for a *lack of support* for a descriptive IAR include increased responsibility and risk (17 respondents), not the role of the IAF (14 respondents), overlap with what the external auditors provide (11 respondents), cost/time/resources (10 respondents), and the magnitude of the change/lack of organizational support (5 respondents). Many of the participants' direct quotations for these reasons were similar to those provided for the support of the descriptive report. Selected participants' responses to support the new reasons above, along with some additional comments related to cost/time/resources noted above, included:

Increased Responsibility and Risk

This is a good idea but I do not know if I would want to have this risk as the leader of internal audit.

Positive assurance equates to using IA as a scapegoat when things go wrong. There will always be issues that go uncovered, and no matter how carefully positive assurance is worded, it can also be used to blame IA for not finding more.

A report to external stakeholders would introduce significant risk to the internal audit department. Additionally, the wide variance in what is meant by effective internal control means that it would be very difficult to produce a report that is consistent across the internal audit universe. However, an inconsistent report would produce little of value to external stakeholders without a consistent and common definition.

Magnitude of Change

If internal audit were to start to issue assurance reports to the public it would change the game. I am not sure how it would be implemented.

Good concept, however, my management team would not accept this unless it was mandated.

Cost/Time/Resources

While an external report of positive assurance could be valuable for investors, it would also significantly drive the scope of the annual internal audit plan. To state that historically “material and higher risk” areas would be evaluated almost implies these areas would need to be audited each and every year. In any given year, there may be higher risks that should be audited for that particular year, and the CAE should have that discretion instead of being forced into more repetitive audits.

I would support this more if I can obtain more resources or get support to ensure all work is performed timely and accurately.

The mean estimated cost for issuing an assurance IAR for public participants (mean = 77.80, median = 50, S.D. = 73.69) is much higher than that of non-public participants (mean = 43.02, median = 36, S.D. = 40.34). The difference in means is statistically different ($F = 9.29$, $p = 0.003$). This may be attributed to the formal control and review processes typically present in public companies. In both public companies and other organizations, it is clear that the respondents believe that internal audit budgets would increase substantially if assurance-based IARs were issued.

IAF Oversight and Budget Determination

The Institute of Internal Auditors calls for the head of the IAF to receive strategic direction and reinforcement from the audit committee chair, while also reporting to management for assistance in establishing direction and support, and as an administrative interface (IIA 2010a). Under this definition, the balance of oversight would seem to reside with the audit committee chair, with management operating in more of a support and interface role. However, Abbott et al. (2010) found a fairly even balance between the audit committee and management in terms of internal audit oversight.

To provide additional insight into this issue, I asked the respondents about the nature of their IAF's oversight. The results (see Table 14) reveal that the non-public participants indicate the oversight of the IAF resides more closely with management than with the audit committee chair (mean = 40.97, S.D. = 30.1). This mean is statistically different ($p = 0.026$) from the scale midpoint of 50. In addition, the non-public participants indicate that the IAF budget determination resides more with management (mean = 26.07, S.D. = 25.42) than with the audit committee chair. This mean is statistically different ($p = <0.001$) from the scale midpoint of 50. These findings indicate that the balance of reporting in practice for the non-public participants resides with management for both measures of oversight.

The public participants indicated that the oversight of the IAF resides equally between management and the audit committee chair (mean = 51.76, S.D. = 22.72). This mean is not statistically different ($p = 0.59$) from the scale midpoint of 50. In addition, the public participants indicated that the budget determination (mean = 39.22, S.D. 27.28) resided more with management than the audit committee chair. This mean is statistically

different ($p = < 0.008$) from the scale midpoint of 50. These findings indicate that the balance of oversight for public participants resides equally with management and the audit committee chair and resides with management for budget determination.

TABLE 14
Survey Responses
Perceptions of IARs and Actual IAF Oversight

		n	Mean	S.D	Difference p-value
Descriptive IAR	Support Public	48	46.35	29.41	0.0757
	Support Non - Public	59	56.85	30.64	
	Cost Public	49	17.71	30.1	0.9486
	Cost Non - Public	57	17.37	24.95	
Assurance IAR	Support Public	49	35.16	26.33	0.6052
	Support Non - Public	58	38.07	30.87	
	Cost Public	49	77.88	73.69	0.0029
	Cost Non - Public	56	43.02	40.35	
Oversight IAF	Public	49	51.76	22.72	0.0418
	Non - Public	58	40.97	30.1	
Determination IAF Budget	Public	49	39.22	27.28	0.012
	Non - Public	56	26.07	25.42	

CHAPTER 5: DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH

This study examined the effects of IAR type at four levels (no report/current state of practice, descriptive report of activities, assurance report on the internal controls, and a descriptive report of activities and an assurance report on the internal controls) and senior level internal audit's reporting relationship at two levels (primarily to management or primarily to the audit committee chair) on internal auditors' fraud risk and control risk assessments.

I find that the issuance of an internal audit report (IAR) to external stakeholders affects internal auditors' judgments. Specifically, internal auditors' fraud risk assessments are higher (more conservative) when the IAR is assurance-based or both activities and assurance-based than when the report is only activities-based or there is no external report. Additionally, the results indicate that when the Chief Audit Executive reports primarily to the Audit Committee Chair (as opposed to management), internal auditors' control risk assessments are higher (more conservative). This relation is marginally significant for fraud risk assessments. Overall, there is evidence that internal audit report type and reporting relationship each affect internal auditors' judgments, increasing the conservatism of certain risk assessments when accountability to stakeholders or the audit committee increases.

When asked about their perceptions of IARs, the participants indicated a moderate degree of support for the issuance of an activities-based (descriptive) IAR, citing that

such a report may provide recognition to the internal audit function (IAF), elevate the status of the IAF, improve corporate governance, and enable benchmarking opportunities. Participants who did not support the issuance of a descriptive IAR indicated that it may provide limited value, may not be consistent with the role of an IAF, may be too costly/time consuming, and may lack required organizational support. Overall, the participants believe that the issuance of a descriptive IAR would increase the total IAF budget by an average of over 17 percent.

The participants indicated a modest degree of support for the issuance of an assurance-based IAR, citing that such a report may increase responsibility and risk to the IAF, may not be consistent with the role of the IAF, may overlap with the external auditor's work, may be costly and require significant time/resources, and represents a significant change that may not be supported by the organization (also see Archambeault et al. 2008). The participants indicated the costs associated with issuing such a report would be extremely high, a mean of 78 percent (43 percent) of the current IAF budget for public company (non-public company) participants.

The results also reveal that, in actual practice, the balance of internal audit reporting for the non-public participants resides with management, for both oversight and budget determination. The balance of oversight for public company participants resides equally between management and the audit committee chair (consistent with Abbott et al. 2010), and resides primarily with management for budget determination. Thus, in actual practice, the participants serve in IAFs with significant accountability to management, rather than the audit committee.

This study used an experimental (and survey) design based on case study material and as such will have certain limitations. These include many standard limitations of this type of research – external validity, representativeness of the participant group, potential for demand effects, and small sample size / limited power in some cases. The case involved only a single scenario, and there was no opportunity for group decision-making that is found in practice. While this topic has had numerous calls for research, it is a relatively new topic. As additional research is performed, a greater understanding will be available to design experiments to address such limitations.

This study has four potential practice implications. First, the results provide management and audit committee members with insights into how to design internal audit report types and relationship types to promote effective corporate governance. These issues are long-standing questions within the practice community, for which limited academic research has been performed. Specifically, the findings of the study show that report types and reporting relationships affect internal auditors' risk assessments. Report types and reporting relationship types that increase internal audit's accountability to stakeholders and to the audit committee result in more conservative judgments. Second, the study highlights the significant potential costs of externally-issued IARs, which must be weighed against the expected benefits. Third, in their actual organizations, participants serve in IAFs with significant accountability to management, rather than the audit committee. Such reporting relationships may impede the effectiveness of the IAF, as well as the overall effectiveness of corporate governance, given that the internal audit function plays such a pivotal role in the governance process (Abbott 2010; Cohen et al. 2004; Gramling et al. 2004). In addition, there may be

implications for the effectiveness of others within the governance mosaic, such as the audit committee and the external auditor who rely on the work of the IAF to fulfill their roles. Fourth, the results of this study may be of interest to policy makers, particularly the Securities and Exchange Commission, as it governs U.S. public company disclosures. I encourage the SEC to carefully consider the costs and benefits of externally-issued IARs, especially as this area of research grows.

Finally, the study has implications for research and theory. The study utilizes accountability theory and agency theory to examine a key area of corporate governance. In applying these theories in the context of corporate governance, researchers are better able to understand how greater accountability of internal auditors may induce greater conservatism and monitoring, tenets of agency theory. In addition, the study responds to previous calls for academic research and provides a complement to earlier work (Holt and DeZoort 2009) that examined the effects of IARs on investors' judgments.

Additional research may be pursued that will advance the understanding of the potential effects of internal auditor relationship type and report type on other key players in the corporate governance mosaic (Cohen et al. 2004), such as the audit committee, senior management, and the external auditor. Gaining insight into these critical relationships may further advance both practice and theory in the area of corporate governance.

REFERENCE LIST

- Abbott, L. J., and Parker, S. (2000). Auditor selection and audit committee characteristics. *Auditing*, 19(2), 47-66.
- , ———, and Peters, G. F. (2010). Serving two masters: The association between audit committee internal audit oversight and internal audit activities. *Accounting Horizons*, 24(1), 1-24.
- Archambeault, D. S., DeZoort, F. T., and Holt, T. P. (2008). The need for an internal auditor report to external stakeholders to improve governance transparency. *Accounting Horizons*, 22(4), 375-388.
- Asare, S. K., Trompeter, G. M., and Wright, A. M. (2000). The effect of accountability and time budgets on auditors testing strategies. *Contemporary Accounting Research*, 17(4), 539-560.
- Ashton, R. H. (1992). Effects of justification and a mechanical aid on judgment performance. *Organizational Behavior and Human Decision Processes*, 52(2), 292-292.
- Barua, A., Rama, D. V., and Sharma, V. (2010). Audit committee characteristics and investment in internal auditing. *Journal of Accounting and Public Policy*, 29(5), 503.
- Baumeister, R. F. (1982). A Self-Presentational View of Social Phenomena. *Psychological Bulletin* 91, 3-26.
- Beasley, M. S., Carcello, J. V., Hermanson, D. R., and Neal, T. L. (2009). The audit committee oversight process. *Contemporary Accounting Research*, 26(1), 2.
- , ———, ———, and ———. (2010). Fraudulent Financial Reporting: 1998-2007. *Committee of Sponsoring Organizations of the Treadway Commission (COSO)*.
- , Clune, R., and Hermanson, D. R. (2005). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), 521-531.

- Carcello, J. V., Hermanson, D. R., and Raghunandan, K. (2005). Factors associated with U.S. public companies investment in internal auditing. *Accounting Horizons*, 19(2), 69-84.
- , ———, and Ye, Z. (2011). Corporate governance research in accounting and auditing: Insights, practice implications, and future research directions. *Auditing*, 30(3), 1-31.
- Chang, C.J., Ho, and Liao, W. (1997). The effects of justification, task complexity and experience/training on problem-solving performance. *Behavioral Research in Accounting* (Supplement), 98-116.
- Cloyd, C. (1997). Performance in tax research tasks: The joint effects of knowledge and accountability. *The Accounting Review*, 72(1), 111-132.
- Cohen, J., Krishnamoorthy, G., and Wright, A. (2004). The corporate governance mosaic and financial reporting quality. *Journal of Accounting Literature*, 23, 87-87.
- , ———, and ———. (2008). Form versus substance: The implications for auditing practice and research of alternative perspectives on corporate governance. *Auditing*, 27(2), 181-198.
- Conover, W. J. (1980). *Practical Nonparametric Statistics*, second ed. New York: John Wiley & Sons.
- DeZoort, F. T. (1997). An investigation of audit committees oversight responsibilities. *Abacus*, 33(2), 208-227.
- , Harrison, P., and Taylor, M. (2006). Accountability and auditors materiality judgments: The effects of differential pressure strength on conservatism, variability, and effort. *Accounting, Organizations and Society*, 31(4), 373-373.
- , Hermanson, D. R., and Houston, R. W. (2003). Audit committee member support for proposed audit adjustments: A source credibility perspective. *Auditing*, 22(2), 189-205.
- , ———, and ———. (2003). Audit committee support for auditors: The effects of materiality justification and accounting precision. *Journal of Accounting and Public Policy*, 22(2), 175-199.
- , ———, and ———. (2008). Audit committee member support for proposed audit adjustments: Pre-SOX versus post-SOX judgments. *Auditing*, 27(1), 85-104.
- Gramling, A. A., and Hermanson, D. R. (2006). What role is your internal audit function playing in corporate governance? *Internal Auditing*, 21(6), 37-39.

- , Maletta, M. J., Schneider, A., and Church, B. K. (2004). The role of the internal audit function in corporate governance: A synthesis of the extant internal auditing literature and directions for future research. *Journal of Accounting Literature*, 23, 194-194.
- Haka, S., and Chalos, P. (1990). Evidence of agency conflict among management, auditors, and the audit committee chair. *Journal of Accounting and Public Policy*, 9(4), 271-271.
- Hermanson, D. R., and Rittenberg, L. E. (2003). Internal Audit and Organizational Governance. In *Research Opportunities in Internal Auditing*. Altamonte Springs, FL: Institute of Internal Auditors Research Foundation.
- , Smith, J., and Stephens, N. (2012). How Effective Are Organizations' Internal Controls? Insights into Specific Internal Control Elements. *Current Issues in Auditing* (Forthcoming).
- Hoffman, V. B., and Patton, J. M. (1997). Accountability, the dilution effect, and conservatism in auditors fraud judgements. *Journal of Accounting Research*, 35(2), 227-237.
- Holt, T., and DeZoort, T.F. (2009). The Effects of Internal Audit Report Disclosure on Investor Confidence and Investment Decisions. *International Journal of Auditing*, 13(1), 61-77.
- The Institute of Internal Auditors. (2010a). *International Standards for the Professional Practice of Internal Auditing*.
- . (2010b). *IIA's Global Internal Audit Survey, What's Next for Internal Auditing?*
- The Institute of Internal Auditors Research Foundation. (2003). *Research Opportunities in Internal Auditing*. Altamonte Springs, FL: Institute of Internal Auditors Research Foundation.
- Jensen, M., and Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics* 3, 305-360.
- Johnson, V., and Kaplan, S. (1991). Experimental evidence on the effects of accountability on auditor judgments. *Auditing: A Journal of Practice & Theory* 10 (Supplement), 96-107.
- Jones, E. E., and Wortman, C. (1977). *Ingratiation: An Attribution Approach*. Morristown, NJ, General Learning Press.

- Klimoski, R., and Inks, L. (1990). Accountability forces in performance appraisal. *Organizational Behavior and Human Decision Processes*, 45(2), 194-194.
- Koonce, L., Anderson, U., and Marchant, G. (1995). Justification of decisions in auditing. *Journal of Accounting Research*, 33(2), 369-369.
- Lapides, P. D., Beasley, M. S, Carcello, J. V. , DeZoort, F. T., Hermanson, D. R. and Neal, T. L. (2007). *21st Century Governance and Audit Committee Principles*. Kennesaw State University, Corporate Governance Center.
- Lord, A. T. (1992). Pressure: A methodological consideration for behavioral research in auditing. *Auditing*, 11(2), 89-108.
- Mero, N. P., and Motowidlo, S. J. (1995). Effects of rater accountability on the accuracy and the favorability of performance ratings. *Journal of Applied Psychology*, 80(4), 517-517.
- , Guidice, R. M., and Brownlee, A. L. (2007). Accountability in a performance appraisal context: The effect of audience and form of accounting on rater response and behavior. *Journal of Management*, 33(2), 223-252.
- Pei, B. K. W., and Davis, F. G. (1989). Impact of organizational structure on internal auditor organizational-professional conflict and role stress: An exploration of linkages. *Auditing*, 8(2), 101-115.
- Quarles, R. (1994). An examination of promotion opportunities and evaluation criteria as mechanisms for affecting internal auditor commitment, job satisfaction and turnover intentions. *Journal of Managerial Issues*, 6(2), 176-176.
- Schlenker, B. R. (1980). *Impression Management: The Self Concept, Social Identity, and Interpersonal Relations*. Monterey, CA, Brooks/Cole.
- . (1986). *Personal Accountability: Challenges and Impediments in the Quest for Excellence*. Technical report prepared for the Navy Personnel Research and Development Center, San Diego, CA.
- , and Weigold M. F. (1989). Self-Identification and Accountability. In R. A. Giacalone and P. Rosenfeld (Eds.), *Impression Management in the Organization*, 21-43. Hillsdale, NJ, Erlbaum.
- , ———, and Doherty K. (1991). Coping with Accountability: Self-Identification and Evaluative Reckonings. In C. R. Snyder and D. R. Forsyth (Eds.), *The Handbook of Social and Clinical Psychology*, 96-115. Elmsford, NY, Pergamon Press.
- Securities and Exchange Commission. (2000). *Audit Committee Disclosure*, RIN 3235-AH83. <http://www.sec.gov/rules/final/34-42266.htm>.

- Semin, G. R., and Manstead, A. S. R. (1983). *The Accountability of Conduct: A Social Psychological Analysis*. San Diego, CA, Academic Press.
- Tan, H. (1995). Effects of expectations, prior involvement, and review awareness on memory for audit evidence and judgment. *Journal of Accounting Research*, 33(1), 113-113.
- Taylor, S. E., and Fiske, S. T. (1978). Salience, Attention, and Attributions: Top of the Head Phenomena. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, 11, 249-288. New York, Academic Press.
- Tetlock, P. E. (1985). Accountability: The Neglected Social Context of Judgment and Choice. In B. M. Staw and L. Cummings (Eds.), *Research in Organizational Behavior*, 9, 279-232. Greenwich, CT, JAI Press.
- . (1992). The Impact of Accountability on Judgment and Choice. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology*, 25, 331-376. San Diego, CA, Academic Press.
- University of California at Los Angeles (UCLA). 2012a. UCLA Academic Technology Services. <http://www.ats.ucla.edu/stat/stata/faq/contrast.htm>
- . 2012b. UCLA Academic Technology Services. <http://www.ats.ucla.edu/stat/stata/faq/effectsize.htm>
- . 2012c. UCLA Academic Technology Services. <http://www.ats.ucla.edu/stat/stata/dae/fpower.htm>
- Wortman, C., and Lisenmeier, J. (1977). Interpersonal Attraction and Technique of Integration in Organizational Settings. In B. Shaw, & G. Salencik, *New Directions in Organizational Behavior*. Chicago, St. Clair Press.

APPENDIX A - IIA FIRST, SECOND AND THIRD SURVEY REQUESTS

From: IIA Chapter President

RE: Important Reminder - Participation in an IIA Award Winning Study

Dear IIA Atlanta Chapter Members:

I am writing to request your participation in an online study being conducted by Doug Boyle, a Doctor of Business Administration (DBA) student at Kennesaw State University. This study is part of Doug's dissertation research focused on improving our understanding of internal auditors' judgments. The study has been reviewed by The IIA Research Foundation and awarded its Michael J. Barrett Doctoral Dissertation Grant.

Your participation is **very important** to the success of this study. I encourage you to click on the link below to complete the study, which should take approximately 20-25 minutes.

Everyone who completes the survey by Monday, November 7, 2011 will be eligible to enter a drawing to win one (1) of three \$100 gift cards.

Your responses will remain **strictly confidential** and will be analyzed only after being combined with the responses of other participants.

Please click below:

https://scranton.us2.qualtrics.com/SE/?SID=SV_9BmSyXF1xdsV4jy

From IIA Chapter President

RE: Important Reminder - Participation in an IIA Award Winning Study

Dear IIA Atlanta Chapter Members:

I am writing to remind you to please participate in an online study being conducted by Doug Boyle, a Doctor of Business Administration (DBA) student at Kennesaw State University. This study is part of Doug's dissertation research focused on improving our understanding of internal auditors' judgments. The study has been reviewed by The IIA Research Foundation and awarded its Michael J. Barrett Doctoral Dissertation Grant.

Your participation is **very important** to the success of this study. I encourage you to click on the link below to complete the study, which should take approximately 20-25 minutes.

Everyone who completes the survey by Monday, November 7, 2011 will be eligible to enter a drawing to win one (1) of three \$100 gift cards.

Your responses will remain **strictly confidential** and will be analyzed only after being combined with the responses of other participants.

Please click below:

https://scranton.us2.qualtrics.com/SE/?SID=SV_9BmSyXF1xdsV4jy

From: IIA Chapter President

RE: Final Reminder - Participation in an IIA Award Winning Study

Dear IIA Atlanta Chapter Members:

I am writing to **thank** those of you who participated in the online survey being conducted by Doug Boyle, a Doctor of Business Administration (DBA) student at Kennesaw State University.

Doug still needs some additional responses to complete the study so I am asking those who did not participate to **please** take the online study.

This study is part of Doug's dissertation research focused on improving our understanding of internal auditors' judgments. The study has been reviewed by The IIA Research Foundation and awarded its Michael J. Barrett Doctoral Dissertation Grant.

Your participation is **very important** to the success of this study. I encourage you to click on the link below to complete the study, which should take approximately 25 minutes.

Everyone who completes the survey by Monday, November 25, 2011 will be eligible to enter a drawing to win one (1) of three \$100 gift cards.

Your responses will remain **strictly confidential** and will be analyzed only after being combined with the responses of other participants.

Please click below:

https://scranton.us2.qualtrics.com/SE/?SID=SV_9BmSyXF1xdsV4jy

APPENDIX B – COPY OF CASE INSTRUMENT

Q1



Consent to Participate in “A Study of Internal Auditors’ Judgments”

We are performing a study to better understand internal auditor judgments. This study has been funded by The Institute of Internal Auditors Research Foundation. Your participation is very important to the success of this study. There are no risks from completing the survey.

This research examines internal auditor judgments about fraud risk, control risk, budgeting, and planning based on a limited set of information. While you will receive no direct benefit for participating, you will be providing a very important contribution to understanding internal auditor judgments and the audit process. The procedures involve you evaluating a hypothetical case and responding to a series of questions.

Your participation in this study is voluntary and you can discontinue participation at any time.

You have the right to skip any question that you would prefer not to answer. The completion of the survey constitutes informed consent to participate in the study. Your responses will remain strictly confidential and will be analyzed only after being combined with the responses of other participants. We will not access or link any individual identifying information to your response.

If you have any additional comments or questions about the study, please feel free to contact any of the researchers listed below:

Douglas M. Boyle, CPA, CMA
 Assistant Professor of Accounting
 The University of Scranton
 boyled2@scranton.edu
 570.510.3271

Todd DeZoort, Ph.D., CFE
 Professor of Accounting
 The University of Alabama
 tdezoort@cba.ua.edu
 205.348.6694

Dana R. Hermanson, PhD.
 Professor of Accounting
 Kennesaw State University
 dhermans@kennesaw.edu
 770.423.6077

By completing the following screens, you are agreeing to participate in this research project.

If you have any questions about your rights as a research participant, you may contact Maria Landis, The University of Scranton Research Compliance Coordinator, at (570) 941-6190 or landism2@scranton.edu or Paula Strange, IRB Administrator, Kennesaw State University IRB Administrator, at (678) 797-2268 or pstrange@kennesaw.edu.

We greatly appreciate your help in our efforts to understand internal auditor judgments!

☐ I have read the consent to participate above and am willing to participate in the study.

Q2

Instructions

1. The pages that follow contain a **hypothetical case** for your consideration and **may not follow current standards and/or practices**.
2. The case includes summary background information and a number of questions for you to answer.
3. Please assume you are working as the **Chief Audit Executive** for the Company when evaluating the case and answering the questions.
4. Please complete the materials in the order presented.
5. There are no right or wrong answers, so please answer the questions in a way that reflects your honest opinions and judgments.
6. The case should take between 20 - 25 minutes to complete.

Thank you for your participation!

Q3**Taft Manufacturing, Incorporated****Company and Industry Background**

Taft Manufacturing, Inc. (Taft) is a publicly-traded company that manufactures and distributes sporting equipment to retailers throughout the United States. Taft operates in a competitive market. Competitive factors in the Company's market include price, quality, and customer service. Customer demand has held steady and the industry appears relatively robust.

Financial Performance

The Company has experienced growth and margins over the years that are comparable to other companies in the industry. The following financial data have been derived from the financial statements of the Company. All amounts are in thousands.

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Net sales	\$194,432	\$204,875	\$208,185	\$225,647	\$237,264
Net income (loss)	14,428	15,247	12,632	11,698	13,254
Total assets	80,841	84,852	86,465	94,741	110,425

Cash flow from operations has remained positive.

Management and Compensation

Management has been led for the past 20 years by a respected CEO. The CFO is a CPA with public accounting experience from one of the “Big Four” firms and has been with the Company for the past 15 years. Management compensation is competitive with the industry, and incentive compensation (e.g., bonuses, stock options) is primarily based on operating results, financial position, and cash flow. Profitability and trend level expectations from analysts, institutional investors, and creditors have been optimistic and reasonable.

Audit Committee and Auditor

The audit committee is composed of three independent directors. The Audit Committee Chair (ACC) has been a member of the board for the past 10 years and ACC for the past five years. The ACC is a CPA with public accounting experience in one of the “Big Four” accounting firms and has experience as a CFO for a public company. The current audit firm is one of the “Big Four”. The firm has audited Taft for the past six years, with no significant audit issues noted during this period.

Internal Controls

Taft has historically had effective internal controls with no reportable conditions or material weaknesses. The Company is not an accelerated filer and does not have a 404b opinion from its auditor. Historically, the Company has had adequate accounting information systems and monitoring of controls, including automated controls and controls over interim financial reporting (where external reporting is required).

Q4 – Reporting Relationship Manipulation - CFO

Reporting Structure

As head of the Internal Audit Department you have a reporting relationship with the Audit Committee Chair (ACC) and the CFO, with the **ACC taking a much more active oversight role than the CFO.**

You discuss topics with the ACC on a frequent basis and receive feedback and direction on the scope, timing, and management of the activities of your function. The ACC approves the charter, risk assessment, and audit plan for your department. You provide direct communication to the ACC on the results of internal audit activities or other matters determined to be necessary, including in private meetings. In addition, you meet with the ACC in preparation for and during the quarterly audit committee meetings.

The ACC ultimately determines your annual performance rating, compensation adjustment, and future career advancement within the organization. The annual budget for your department is based on discussions between you and the ACC. The ACC may

solicit feedback from the CFO to aid in the assessment of your performance and the determination of your budget.

You discuss topics with the CFO on a quarterly basis. During these discussions you communicate the direction and support needed from the finance function by your department to execute your annual audit plan. In practice, the CFO primarily acts as an administrative point person between your department and the finance organization.

Q5 - Reporting Relationship Manipulation - ACC

Reporting Structure

As head of the Internal Audit Department you have a reporting relationship with the CFO and the Audit Committee Chair (ACC), **with the CFO taking a much more active oversight role than the ACC.**

You discuss topics with the CFO on a frequent basis and receive feedback and direction on the scope, timing, and management of the activities of your function. Prior to the ACC's formal approval of the charter, risk assessment, and audit plan for your department, the CFO reviews these materials with you and provides feedback and an informal approval. You provide direct communication to the CFO on the results of internal audit activities or other matters determined to be necessary, including in private meetings. In addition, you meet with the CFO in preparation for the quarterly audit committee meetings.

The CFO can significantly influence your annual performance rating, compensation adjustment, and future career advancement within the organization. The annual budget for your department is largely shaped by discussions between you and the CFO. The CFO and ACC also discuss your performance and the internal audit budget with each other, ultimately leading to formal audit committee approval.

You discuss topics with the ACC on a quarterly basis primarily related to the audit committee meeting. In preparation for these meetings, you and the ACC discuss the key activities performed by your function since the last meeting and any related findings that you deem material. In practice, the ACC primarily acts a point person between your department and the audit committee.

Q6 – Report Type Manipulation – Both External Descriptive and Assurance Report

Internal Audit Reports

As part of your audit process, your department issues a written report after each assigned engagement. **These engagement-level reports are for internal distribution only.** The content of the reports varies by assignment but typically includes a summary of findings with recommendations to management. The audit committee receives copies of all your final reports along with management's response.

In addition, your department voluntarily issues an **overall annual written report to external stakeholders.** This annual internal audit report is included as an appendix to the Company's proxy statement and is disclosed on the Company's website at www.TaftInc.com.

This report (a) **provides descriptive information about your Internal Audit Department,** including sections on internal audit composition, responsibilities,

accountability, activities, and resources and (b) **provides positive assurance on the effectiveness of internal control** in areas that have historically deemed to be material and of higher risk. The revenue cycle has been identified as one of these areas. The report issued by your department for 2010 is as follows:

Internal Audit Activities Report

Composition

Taft, Inc. maintains an in-house Internal Audit Department that was established in 1991. The department includes a Chief Audit Executive who supervises five other internal auditors. The Chief Audit Executive has 10 years of professional experience in internal auditing and is a CPA and CIA.

Responsibilities

The Internal Audit Department acts under a written charter that is updated annually. The Internal Audit Department provides assurance and consulting activities designed to add value and improve the Company's operations, and is responsible for evaluating risk exposures relating to the Company's governance, operations, and information systems.

Accountability

The Internal Audit Charter specifies that the Internal Audit Department's independence is established by the Company's organizational and reporting structure. The Internal Audit Department has a reporting relationship with the Audit Committee Chair and the CFO.

The Internal Audit Department maintains a quality assurance and improvement program that covers all aspects of internal audit activity and includes periodic internal assessments, external quality assessments at least once every five years, and continuous internal monitoring. The results of the most recent external assessment, which was conducted by a qualified independent reviewer in 2009, indicate that the Internal Audit Department is currently in compliance with all applicable rules of the professional guidance offered by The Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

Activities

The Internal Audit Department's activities during 2010 were approximately 60% assurance-related and 40% consulting-related. The scope of these activities was determined by an evaluation of company risk exposures approved by the audit committee. During 2010, the Chief Audit Executive met formally with the audit committee and the Company's independent auditors each quarter to discuss internal audit evaluations of the Company's risk exposures and internal controls. The Chief Audit Executive also reviewed and discussed the Company's audited financial statements and management report on internal controls with the audit committee and the independent auditor.

Resources

For fiscal 2010, the total cost of maintaining the Internal Audit Department was \$800,000. This amount includes salaries and administrative overhead, and represents approximately .5% of the Company's total operating expenses.

Internal Audit Assurance Report

We have completed the internal audit plan of internal control over the revenue cycle. The objective of this engagement was to determine whether the Company maintained, in all material respects, effective internal control over this cycle as of December 31, 2010.

The plan was prepared considering the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). This Integrated Framework is designed to provide reasonable assurance that internal controls are established and effectively operating to achieve organizational objectives in the areas of (1) reliability of financial reporting, (2) compliance with applicable laws and regulations, and (3) effectiveness and efficiency of operations. The internal audit examined the Company's internal control over this cycle based on the results of audit assignments we have completed throughout the year as part of our integrated audit plan. These internal audits were conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*. Our audit of internal control over this cycle included obtaining an understanding of internal control, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. The criteria were discussed and agreed with management before the conduct of detailed audit procedures.

We concluded that the Company maintained, in all material respects, effective internal control over this cycle as of December 31, 2010. Our overall opinion on the internal control over the revenue cycle is satisfactory.

In our professional judgment, sufficient and appropriate audit procedures have been conducted and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions were based on a comparison of the situations as they existed at the time against the audit criteria. The conclusions are only applicable for the entity examined. The evidence gathered meets professional audit standards and is sufficient to provide senior management with proof of the conclusions derived from the internal audit.

Q7 - Report Type Manipulation – External Assurance Report [to provide participants with information about IAF activities]

Internal Audit Department

The Internal Audit Department at Taft was established in 1991 and includes you as the Chief Audit Executive and five other internal auditors. You have 10 years of professional experience in internal auditing and are a CPA and CIA.

Responsibilities

The Internal Audit Department acts under a written charter that is updated annually. The Internal Audit Department provides assurance and consulting activities designed to add value and improve the Company's operations, and is responsible for evaluating risk exposures relating to the Company's governance, operations, and information systems.

Accountability

The Internal Audit Charter specifies that the Internal Audit Department's independence is established by the Company's organizational and reporting structure. The Internal Audit Department has a reporting relationship with the Audit Committee Chair and the CFO.

The Internal Audit Department maintains a quality assurance and improvement program that covers all aspects of internal audit activity and includes periodic internal assessments, external quality assessments at least once every five years, and continuous internal monitoring.

The results of the most recent external assessment, which was conducted by a qualified independent reviewer in 2009, indicate that the Internal Audit Department is currently in compliance with all applicable rules of the professional guidance offered by The Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

Activities

The Internal Audit Department's activities during 2010 were approximately 60% assurance-related and 40% consulting-related. The scope of these activities was determined by an evaluation of company risk exposures approved by the audit committee.

During 2010, the Chief Audit Executive met formally with the audit committee and the Company's independent auditors each quarter to discuss internal audit evaluations of the Company's risk exposures and internal controls.

The Chief Audit Executive also reviewed and discussed the Company's audited financial statements and management report on internal controls with the audit committee and the independent auditor.

Resources

For fiscal 2010, the total cost of maintaining the Internal Audit Department was \$800,000. This amount includes salaries and administrative overhead, and represents approximately .5% of the Company's total operating expenses.

Q8 - Report Type Manipulation – External Assurance Report

Internal Audit Reports

As part of your audit process, your department issues a written report after each assigned engagement. **These engagement-level reports are for internal distribution only.** The content of the reports varies by assignment but typically includes a summary of findings with recommendations to management. The audit committee receives copies of all your final reports along with management's response.

In addition, your department voluntarily issues an **overall annual written report to external stakeholders.** This annual internal audit report is included as an appendix to the Company's proxy statement and is disclosed on the Company's website at www.TaftInc.com.

This report **provides positive assurance on the effectiveness of internal control** in areas that have historically deemed to be material and of higher risk. The revenue cycle has been identified as one of these areas. The report issued by your department for 2010 is as follows:

Internal Audit Assurance Report

We have completed the internal audit plan of internal control over the revenue cycle. The objective of this engagement was to determine whether the Company maintained, in all material respects, effective internal control over this cycle as of December 31, 2010.

The plan was prepared considering the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). This Integrated Framework is designed to provide reasonable assurance that internal controls are established and effectively operating to achieve organizational objectives in the areas of (1) reliability of financial reporting, (2) compliance with applicable laws and regulations, and (3) effectiveness and efficiency of operations. The internal audit examined the Company's internal control over this cycle based on the results of audit assignments we have completed throughout the year as part

of our integrated audit plan. These internal audits were conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*. Our audit of internal control over this cycle included obtaining an understanding of internal control, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. The criteria were discussed and agreed with management before the conduct of detailed audit procedures.

We concluded that the Company maintained, in all material respects, effective internal control over this cycle as of December 31, 2010. Our overall opinion on the internal control over the revenue cycle is satisfactory.

In our professional judgment, sufficient and appropriate audit procedures have been conducted and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions were based on a comparison of the situations as they existed at the time against the audit criteria. The conclusions are only applicable for the entity examined. The evidence gathered meets professional audit standards and is sufficient to provide senior management with proof of the conclusions derived from the internal audit.

Q9 - Report Type Manipulation – External Descriptive Report

Internal Audit Reports

As part of your audit process, your department issues a written report after each assigned engagement. **These engagement-level reports are for internal distribution only.** The content of the reports varies by assignment but typically includes a summary of findings with recommendations to management. The audit committee receives copies of all your final reports along with management's response.

In addition, your department voluntarily issues an **overall annual written report to external stakeholders.** This annual internal audit report is included as an appendix to the Company's proxy statement and is disclosed on the Company's website at www.TaftInc.com.

This report **provides descriptive information about your Internal Audit Department,** including sections on internal audit composition, responsibilities, accountability, activities, and resources. The report issued by your department for 2010 is as follows:

Internal Audit Activities Report

Composition

Taft, Inc. maintains an in-house Internal Audit Department that was established in 1991. The department includes a Chief Audit Executive who supervises five other internal auditors. The Chief Audit Executive has 10 years of professional experience in internal auditing and is a CPA and CIA.

Responsibilities

The Internal Audit Department acts under a written charter that is updated annually. The Internal Audit Department provides assurance and consulting activities designed to add value and improve the Company's operations, and is responsible for evaluating risk exposures relating to the Company's governance, operations, and information systems.

Accountability

The Internal Audit Charter specifies that the Internal Audit Department's independence is established by the Company's organizational and reporting structure. The Internal Audit Department has a reporting relationship with the Audit Committee Chair and the CFO.

The Internal Audit Department maintains a quality assurance and improvement program that covers all aspects of internal audit activity and includes periodic internal assessments, external quality assessments at least once every five years, and continuous internal monitoring. The results of the most recent external assessment, which was conducted by a qualified independent reviewer in 2009, indicate that the Internal Audit Department is currently in compliance with all applicable rules of the professional guidance offered by The Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

Activities

The Internal Audit Department's activities during 2010 were approximately 60% assurance-related and 40% consulting-related. The scope of these activities was determined by an evaluation of company risk exposures approved by the audit committee. During 2010, the Chief Audit Executive met formally with the audit committee and the Company's independent auditors each quarter to discuss internal audit evaluations of the Company's risk exposures and internal controls. The Chief Audit Executive also reviewed and discussed the Company's audited financial statements and management report on internal controls with the audit committee and the independent auditor.

Resources

For fiscal 2010, the total cost of maintaining the Internal Audit Department was \$800,000. This amount includes salaries and administrative overhead, and represents approximately .5% of the Company's total operating expenses.

Q10 - Report Type Manipulation – No External Report [to provide participants with information about IAF activities]

Internal Audit Department

The Internal Audit Department at Taft was established in 1991 and includes you as the Chief Audit Executive and five other internal auditors. You have 10 years of professional experience in internal auditing and are a CPA and CIA.

Responsibilities

The Internal Audit Department acts under a written charter that is updated annually. The Internal Audit Department provides assurance and consulting activities designed to add value and improve the Company's operations, and is responsible for evaluating risk exposures relating to the Company's governance, operations, and information systems.

Accountability

The Internal Audit Charter specifies that the Internal Audit Department's independence is established by the Company's organizational and reporting structure. The Internal Audit Department has a reporting relationship with the Audit Committee Chair and the CFO.

The Internal Audit Department maintains a quality assurance and improvement program that covers all aspects of internal audit activity and includes periodic internal assessments, external quality assessments at least once every five years, and continuous internal monitoring. The results of the most recent external assessment, which was conducted by a qualified independent reviewer in 2009, indicate that the Internal Audit Department is currently in compliance with all applicable rules of the professional guidance offered by The Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

Activities

The Internal Audit Department's activities during 2010 were approximately 60% assurance-related and 40% consulting-related. The scope of these activities was determined by an evaluation of company risk exposures approved by the audit committee.

During 2010, the Chief Audit Executive met formally with the audit committee and the Company's independent auditors each quarter to discuss internal audit evaluations of the Company's risk exposures and internal controls.

The Chief Audit Executive also reviewed and discussed the Company's audited financial statements and management report on internal controls with the audit committee and the independent auditor.

Resources

For fiscal 2010, the total cost of maintaining the Internal Audit Department was \$800,000. This amount includes salaries and administrative overhead, and represents approximately .5% of the Company's total operating expenses.

Q11 - Report Type Manipulation – No External Report

Internal Audit Reports

As part of your audit process, your department issues a written report after each assigned engagement. **All of your reports are for internal distribution only.** The content of the reports varies by assignment but typically includes a summary of findings with recommendations to management. The audit committee receives copies of all your final reports along with management's response.

Q12

System Conversion and Related Internal Control Issues

Taft has recently gone through an operational and financial system conversion. The conversion involved the replacement of all key systems. The conversion was implemented by an in-house team reporting to the CFO. The CFO strongly lobbied for this initiative and recommended that the system be implemented by an in-house team. The Internal Audit Department did not play any significant role in the conversion decision or implementation process.

The conversion was completed in the second quarter of the current fiscal year (2011) and has not gone as smoothly as planned. In particular, the controls that were operating effectively under the prior system for the revenue cycle needed to be re-built into the new system. Of particular concern to your department are controls related to the recording of revenue. Company policy requires that prior to the recognition of revenue, a matching process must be performed whereby the approved customer purchase order and shipping document are reviewed, matched, and approved by the billing manager.

During the third quarter, as part of its annual audit plan, your Internal Audit Department performed a preliminary walk-through of the revenue cycle to assess fraud risk and control risk in preparation for year-end testing. During this walk-through and related testing, it was revealed that the control procedures (related to matching the purchase order and shipping document) had not been consistently documented or performed. In particular, your control testing revealed that 18% of the 200 sample items resulted in an exception (i.e., the proper documentation that the control was performed was missing or incomplete). These control deficiencies could lead to a material misstatement in the financial statements for the current fiscal year, 2011.

When your staff made inquiries to the related management regarding these control deficiencies, they were told that "the conversion significantly impacted the operation, and

we did not have enough time to perform all of the procedures as we had done prior to the conversion. Our primary focus was to get the inventory shipped to the customers to meet their needs and work on the related paperwork later as time permitted.” They also responded that the CFO was aware of these issues and supported that approach.

You are now considering the fraud risk and control risk related to this cycle and the time needed for testing in this cycle for the current year-end (2011) audit, given the situation described above.

Q13

Please answer the following questions in the order they are presented.

- Unless otherwise indicated, you may refer back to the case materials when answering the questions.
- Do not change your responses once they are recorded.

Q14

Based only on the information presented in the case materials, please slide the below bar to indicate your opinion as to the level of financial statement **fraud risk** associated with the revenue cycle for this fiscal year (0 represents low risk, 50 represents moderate risk, and 100 represents high risk).

Sliding scale 0 to 100

Q15

Please briefly explain your rationale.

Q16

Based only on the information presented in the case materials, please slide the below bar to indicate your opinion as to the level of **control risk** associated with the revenue cycle for this fiscal year (0 represents low risk, 50 represents moderate risk, and 100 represents high risk).

Sliding scale 0 to 100

Q17

Please briefly explain your rationale.

Q18

Based only on the information presented in the case materials, please slide the below bar to indicate how **many hours** would you expect to spend on the revenue cycle **control testing** during the current year-end internal audit as compared to the prior fiscal year-end audit (-50 represents significantly fewer hours this year, 0 represents the same amount of hours, and 50 represents significantly more hours this year).

Sliding scale -50 to 50

Q19

Based only on the information presented in the case materials, please slide the below bar to indicate how important it would be to **justify** to the **Chief Financial Officer** the audit hours you have budgeted to audit internal control over the revenue cycle (0 represents not at all important, 50 represents moderately important, and 100 represents very important).

Sliding scale 0 to 100

Q20

Based only on the information presented in the case materials, please slide the below bar to indicate the **experience level** of the staff you would assign to the revenue cycle **control testing** for the current year-end internal audit as compared to the prior fiscal year-end audit (-50 represents significantly less experience this year, 0 represents the same amount of experience, and 50 represents significantly more experience this year).

Sliding scale -50 to 50

Q21

Based only on the information presented in the case materials, please slide the below bar to indicate **how comfortable** you would be in reporting the preliminary internal control deficiency findings (18% exceptions) to the **Chief Financial Officer** (-50 represents very uncomfortable, 0 represents neutral, and 50 represents very comfortable).

Sliding scale -50 to 50

Q22

Please answer the following questions **without referring back to the prior screens**. It is very important to not go back to prior screens.

Q23 – Manipulation Check – Reporting Relationship

In this case, who most actively oversees the Internal Audit Department?

- ☐ Chief Financial Officer (CFO)
- ☐ Audit Committee Chair (ACC)

Q24 – Manipulation Check – Report Type

In this case, your Internal Audit Department produces the following **voluntary (not required) reports to external stakeholders**:

- ☐ No reporting to external stakeholders – all internal audit reports are for internal use only.
- ☐ An overall annual written report to external stakeholders that includes only descriptive information about the internal audit function.
- ☐ An overall annual written report to external stakeholders that provides only positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk.
- ☐ An overall annual written report to external stakeholders that includes both descriptive information about the internal audit function and provides positive assurance on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk.

Q25

Please indicate by sliding the bar below, how **realistic** the case was in regards to the **system conversion and related audit considerations** (0 represents very unrealistic, 50 represents moderately realistic, and 100 represents very realistic).

Sliding scale 0 to 100

Q26

Please indicate by sliding the bar below, how **understandable** this case was (0 represents very difficult to understand, 50 represents moderately understandable, and 100 represents very understandable).

Sliding scale 0 to 100

Q27

Some have called for internal audit departments to provide an annual written report to **external stakeholders** that includes **descriptive information** about the internal audit function such as its composition, responsibilities, accountability, activities, and resources. Please indicate by sliding the bar below, your personal level of support for such an external report (0 represents no support, 50 represents moderate support, and 100 represents full support).

Sliding scale 0 to 100

Q28

Please explain your rationale.

Q29

Please indicate by sliding the bar below, **how much you believe it would cost** for **your internal audit department** to issue an annual report to external stakeholders that provides **descriptive information** about the internal audit function such as its composition, responsibilities, accountability, activities, and resources. (Please state the cost estimate as a percentage of your current total annual internal audit budget).

Sliding scale 0% to 300%

Q30

Some have called for internal audit departments to provide an annual written report to **external stakeholders** that provides **positive assurance** on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk. Please indicate by sliding the bar below, your personal level of support for such an external report (0 represents no support, 50 represents moderate support, and 100 represents full support).

Sliding scale 0 to 100

Q31

Please explain your rationale.

Q32

Please indicate by sliding the bar below, **how much you believe it would cost** for your **internal audit department** to issue an annual report to external stakeholders that provides **positive assurance** on the effectiveness of internal control in areas that have historically deemed to be material and of higher risk. (Please state the cost estimate as a percentage of your current total annual internal audit budget).

Sliding scale 0% to 300%

Q33

The questions that follow are for classification purposes only. No effort will be made to identify you based on the information you provide.

Q34

What is your gender?

- ☐ Female
- ☐ Male

Q35

Please provide your total years of professional business experience, including years as an internal auditor.

- ☐ Less than 5 years
- ☐ 5 to 10 years
- ☐ 11 to 15 years
- ☐ 16 to 20 years
- ☐ 21 to 25 years
- ☐ Over 25 years

Q36

Please provide your total years of professional experience as an internal auditor.

- ☐ Less than 5 years
- ☐ 5 to 10 years
- ☐ 11 to 15 years
- ☐ 16 to 20 years
- ☐ 21 to 25 years
- ☐ Over 25 years

Q37

Please provide your current title.

- ☐ Chief Audit Executive (or other equivalent title) (1)
- ☐ Director of Internal Audit (2)
- ☐ Manager of Internal Audit (3)
- ☐ Accounting/Consulting Firm Partner (4)
- ☐ Accounting/Consulting Firm Senior Manager (5)
- ☐ Accounting/Consulting Firm Manager (6)
- ☐ Other (please provide below) (7) _____

Q38

Please indicate the segment(s) in which you currently work.

- ☐ Consulting (1)
- ☐ Government (2)
- ☐ Public Accounting (3)
- ☐ Public Company (4)
- ☐ Private For-Profit Company (5)
- ☐ Not-For-Profit (6)
- ☐ Other (7)

Q39

Please indicate the approximate annual revenue of your employer.

- ☐ Less than \$10 million (1)
- ☐ \$10 million to \$50 million (2)
- ☐ \$51 million to \$100 million (3)
- ☐ \$101 million to \$200 million (4)
- ☐ \$201 million to \$300 million (5)
- ☐ \$301 million to \$400 million (6)
- ☐ \$401 million to \$500 million (7)
- ☐ \$501 million to \$1 billion (8)
- ☐ Over \$1 billion (9)

Q40

Please indicate below any professional certifications that you hold (check all that apply).

- ☐ CIA (1)
- ☐ CFA (2)
- ☐ CFE (3)
- ☐ CMA (4)
- ☐ CPA (5)

- ☐ I do not hold any of the above professional certifications (6)

Q41

Please indicate your educational status (check all that apply).

- ☐ Undergraduate Degree in Accounting (1)
☐ Other Undergraduate Degree (2)
☐ MBA (3)
☐ Masters in Accountancy (4)
☐ Masters in Taxation (5)
☐ Other Masters Degree (6)
☐ Doctoral Degree in Accounting (7)
☐ Other Doctoral Degree (8)

Q42

Please indicate by sliding the bar below, the **degree to which management and the audit committee actively oversee** the Internal Audit Department in your **organization** (0 represents oversight is provided almost exclusively by management, 50 represents equal oversight by management and the audit committee, and 100 represents oversight is provided almost exclusively by the audit committee).

Sliding scale 0 to 100

Q43

Please indicate by sliding the bar below, which group has the greatest influence over the **determination** of the **Internal Audit Department's budget** in **your organization** (0 represents it is almost exclusively influenced by management, 50 represents it is equally influenced by management and the audit committee, and 100 represents it is almost exclusively influenced by the audit committee).

Sliding scale 0 to 100

Q44

If you have any additional thoughts about this case, write them here:

Q45

Thank you for completing the survey.

Your responses have been recorded and will remain strictly confidential. If you would like to be entered in the \$100 American Express gift certificate drawing and/or receive a summary report of the aggregate survey responses, please check the appropriate boxes below and provide an e-mail address where we may contact you for these purposes. (Your e-mail address will only be used for these purposes and will be disassociated from your survey responses.)

- ☐ Please enter me in the \$100 American Express gift certificate drawing. (12)
- ☐ Please send me a summary report of the survey responses. (8)

Q46

Email address: